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CAHIER Nº 33

**EXCAVATIONS** 

IN

BONULaux

THE ROYAL NECROPOLIS AT ELECAMARNA
1984

By

ALY EL-KHOULY

and

GEOFFREY THORNDIKE MARTIN



LE CAIRE

IMPRIMERIE DE L'INSTITUT FRANÇAIS D'ARCHÉOLOGIE ORIENTALE

MCMLXXXVII



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# CONTENTS

NTRODUCTION. By G.T. Martin	Page VII
LIST OF PLATES	. хі
Гомв 27	. 1
Гомв 28	. 3
Гомв 29	. 7
Bed of Side Wâdi	. 13
ROCK LEDGE AT END OF SIDE WADI	. 13
Гомв 30	. 14
Conclusions	. 15
Appendix 1. Hieratic Dockets. By Anthony Leahy	. 17
APPENDIX 2. POTTERY. By Pamela Rose	. 18
Appendix 3. Skeletal Remains. By Nasry Iskander	. 33
Appendix 4. Other Analyses. By Nasry Iskander	. 35
Concordance of Field Excavation Numbers and Present Catalogue Numbers	. 43
NAT V	45

		V

#### INTRODUCTION

The excavation report published in the following pages is the result of work carried out by Dr Aly el-Khouly and the writer in the royal necropolis at El-'Amarna between 16 March and 14 April 1984, and as a direct result of observations made by the writer in 1980 during an epigraphic campaign in the tomb of Akhenaten. The latter work was sponsored by the Egypt Exploration Society (1), the present campaign was under the auspices of, and financed by, the Organisation of Egyptian Antiquities.

My daily treks in the Wâdi Abû Ḥasaḥ el-Baḥri gave me an unparalleled opportunity of noting a number of previously unknown or sparsely recorded facts. First, it was clear that the area of the royal necropolis was virtually untouched since the 'Amarna royal family abandoned it on the transfer of the seat of government to Memphis, c. Year 3 of Tut'ankhamūn. The pathways used by the ancient necropolis guards and workmen were still evident in the main wâdis, in some side wâdis, and on the high desert above. These for the most part are not recorded in the fundamental work of Timme (2). Furthermore, the remains of rough stone huts and shelters here and there in the main wâdi, certainly ancient from the patination on the exposed surfaces of the stones, were simple buildings presumably used by the same necropolis guards and others. From the point of view of the administration of a royal necropolis all these facts were worth investigating.

Secondly, during 1980, when investigating the side wâdi nearly opposite the entrance to the Royal Wâdi, where two tombs were noted by earlier writers, quantities of pottery sherds were to be seen lying in the bed of the wâdi, either on the surface or wedged in between the boulders. Clearly the sherds had not arrived there by chance, and they must have been washed down from the dumps outside both tombs, dumps which were still to be seen before our campaign began. On a subsequent visit with Mr Mark Lehner

<sup>(1)</sup> Previous references to the tombs in the royal necropolis are provided in G.T. Martin, The Royal Tomb at El-'Amarna, i. The Objects (London, 1974), 2, with sketch plans on pls. 2, 3, 5.
(3) P. Timme, Tell el-Amarna vor der deutschen Ausgrabung (Leipzig, 1917). The relevant plate in this publication (pl. 6) is reproduced in the present monograph, as pl. 1.

during my epigraphic season of 1980 we observed large animal bones protruding from the surface of the dump outside the first of the two tombs (no. 28), which seemed to us to be those of a bull or an ox. Not wishing to disturb the deposit we covered them carefully where exposed, and left them for future excavation. They were removed from the dump in 1984, and have been given expert identification, with interesting results, as will be seen in Appendix 3.

The two tombs just mentioned, and another in the main wâdi, were investigated and cleared for the then Department of Antiquities by J.D.S. Pendlebury in 1934, but any records that may have been kept on that occasion have totally vanished. Detailed plans were apparently not prepared. The three tombs have now been assigned the numbers 27-29 in the 'Amarna series, and a fourth tomb (in the Royal Wâdi) is now no. 30, all following on from the Royal Tomb proper (no. 26). Since 1934 all four tombs (1) had become partly filled with water-borne mud and other debris, particularly in the case of the tomb in the main wâdi (no. 27).

It seemed to me at the time that these monuments, although totally devoid of inscriptions or decoration, would amply repay investigation, a view which I aired in public lectures, particularly as so little is known of royal burial arrangements in the 'Amarna Period. Hitherto our information has been confined to the 'Amarna Royal Tomb (the tomb of Akhenaten), and the enigmatic Tomb 55 in the Kings' Valley at Thebes. In 1983 the matter became somewhat more urgent, since El-'Amarna was one of the sites designated for touristic development, and I was alarmed lest material would be disturbed and historical clues irretrievably lost once visitors had complete access to the area of the royal necropolis (2). The Organisation of Egyptian Antiquities decided also in 1983 to make preparations for opening the tomb of Akhenaten to visitors, and a desert road for vehicles was speedily prepared through the main Wâdi Abû Ḥasâḥ el-Baḥri. In March 1983 I wrote a brief report outlining my views on the above, and presented it to Dr. Ahmed Kadry,

President of the Organisation of Egyptian Antiquities, who did me the signal honour of inviting me to participate in a campaign of recording and survey in the necropolis before the evidence was lost or disturbed. Thus, the campaign that I had visualized as taking place in the distant future suddenly came about, and it was with delight that I found myself collaborating with my colleague, Dr Aly el-Khouly, in an investigation very dear to my heart.

Our work started somewhat late in the traditional excavation season, and our brief for the first campaign was therefore necessarily limited in scope: to clear, to plan, photograph and publish the tombs (other than the Royal Tomb proper) in the necropolis, and to investigate the dumps outside Tombs 27-29. The objectives have been accomplished in full, but work remains to be done, in particular the investigation of further probable dumps and the survey and mapping of the tracks and hutments alluded to above. The latter would need large-scale planning and finance not immediately available to the present expedition.

I wish to record my sincere thanks to H.E. Dr Ahmed Kadry and to the Permanent Committee for Archaeology for authorizing the work. Furthermore I wish to express my profound gratitude to Mr George L. Brown (Bixby, Oklahoma, USA) who most generously provided funds to enable me to obtain leave of absence from teaching responsibilities in the Spring of 1984, and to Dr Christine Lilyquist and the authorities of The Metropolitan Museum of Art, New York, for much appreciated help in this regard. Professor H.S. Smith and the ever-understanding administrative authorities of University College London granted me the necessary leave so that I could participate in the 'Amarna campaign. Both authors thank Mr El-Sayed Abdel-Ḥamid for surveying and planning the tombs in the royal necropolis. Miss P.J. Rose, Dr A. Leahy, and Dr N. Iskander kindly contributed specialist reports. The descriptive matter, drawings, and commentary are the responsibility of the undersigned (1).

G.T. MARTIN, Et-Till Village, 'Amarna, April 1984

<sup>(1)</sup> It is uncertain whether Pendlebury cleared the small unfinished tomb or chamber (no. 30) in the Royal Wadi. The tomb of Akhenaten will shortly be published in full in Martin, op. cit. ii. The reliefs, inscriptions and architecture.

<sup>(</sup>a) The ancient trackway alluded to above has now partly disappeared as a result of desert roadworks in the wadi, preparatory to opening up the area to tourists and other visitors.

<sup>(1)</sup> Certain samples submitted for scientific analysis on the conclusion of the work have yet to be examined and reported on.

#### LIST OF PLATES

- 1. Map of the El-'Amarna area, showing the Royal Necropolis. From Timme, Tell el-'Amarna, pl. 6.
- 2.— Ditto, continuation of preceding.
- 3. Tomb 27, plan.
- 4. Tomb 27, section on AA.
- 5. Tomb 28, plan.
- 6. Tomb 28, section on AA.
- 7. Tomb 29, plan, and section on AA.
- 8. Tomb 30, plan and section on AA.
- 9.— Wâdi Abû Ḥasâḥ el-Baḥri. Above, from west, showing entrance to Royal Wâdi in middle distance. Below, from east, with entrance to Royal Wâdi at lower right. Photos: G.T.M.
- 10. Tomb 27. Above, entrance before excavation, 1984. Below, dump outside entrance, showing slit trenches of J.D.S. Pendlebury. Photos: G.T.M.
- 11. Side wâdi. Above, entrance from main Wâdi Abû Ḥasâḥ el-Baḥri, showing pathway and bed of wâdi. Below, looking towards main wâdi. Photos: G.T.M.
- 12. Side wâdi. Above, showing pathway, bed of wâdi, and entrance to Tombs 28 and 29 (arrowed). Below, end of wâdi bed, with rock ledge above (arrowed). Photos: G.T.M.
- 13.— Side wâdi. Above, entrances to Tombs 28 and 29, with dumps outside. Below, dumps seen from above, showing slit trenches of J.D.S. Pendlebury. Photos: G.T.M.
- 14. Royal Wâdi. Above, Tomb 30, entrance. Below, preliminary workings for a tomb entrance near Royal Tomb. Photos: G.T.M.
- 15. Objects, Cat. 73, 20, 35.
- 16. Objects, Cat. 74, 23, 22, 21, 88.
- 17. Hieratic dockets on pottery, Cat. 18, 12, 63, 41, 59, 67.
- 18. Ditto, Cat. 51, 15, 17, 14, 31, 69, 11.
- 19. Hieratic dockets on pottery, and marks, Cat. 47, 16, 54, 66, 61, 42, 60, 13, 9, 55.
- 20. Ink marks on pottery, design ostraca, etc., Cat. 57, 65, 58, 56, 64, 62, 36, 39, 37, 32.
- 21. Design ostraca, seal impression, and objects, Cat. 68, 35, 22, 40, 73.
- 22. Objects, incised potsherds, Cat. 20, 87, 71, 70, 19, 43, 49, 3, 34.
- 23. Incised potsherds, Cat. 7, 33, 48, 53, 5, 6, 38, 8, 45.
- 24. Incised potsherds, Cat. 50, 4, 10, 52, 46, 44.
- 25. Skull from ledge above side wâdi, lateral view.
- 26. Ditto, with teeth.
- 27. Ditto. Above, section of cranium. Below, section of caudal.

## TOMB No. 27

(Plates 3, 4, 10)

The entrance of the tomb is cut at the base of a small wâdi or 'waterfall', a little above the floor of the main Wâdi Abû Ḥasâḥ el-Baḥri. The tomb

is cut in a stratum of hard rock, the side walls of the stairway and the area above the door-opening being well cut, though the natural stone is full of holes and fissures. There is no trace of plaster in this area.

A central slide 1.0 m wide for the lowering of the sarcophagus is provided in this tomb. To the left (east) of it are twenty-one steps, and to the right likewise twenty-one. Six additional rough steps are cut in the rubble above, but these may not be ancient. A level area 3.20 m (east-west) × 3.20 m (north-south)

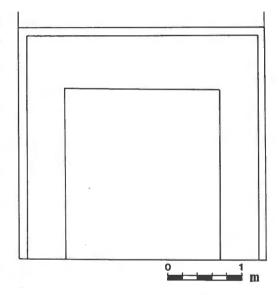


Fig 1. — Doorway of Tomb 27.

has been cut below the steps. No trace of a foundation deposit was found in this area. The doorway itself and its surround have been carefully dressed, and a shallow groove 9.0 cm wide has been cut as a frame round it (see Fig. 1).

Both reveals (thicknesses) of the door have rough cuts in their surface, but the purpose of these is not apparent. On the left (east) side the cut is irregular, the maximum dimensions being 58.0 cm (across top)  $\times 70.0 \text{ cm}$  (right side), the depth being about 1.5 cm. The other reveal has a cut somewhat more regular, measuring 62.0 cm (across top)  $\times 74.0 \text{ cm}$ , being some 5.5 cm at its deepest.

FIRST CORRIDOR

This sloping corridor was still in process of being cut when work was abandoned. Before our work began in 1984 it was filled with fine powdery mud to a depth above the level of the step of the doorway.

The ceiling, walls, and floor are full of fissures, and there are many cracks in the ceiling. Some plaster is apparent in the latter, so that the masons must have begun to 'make good' these deficiencies while work was in progress further below. We ourselves found a few pieces of plaster in the fill of the corridor.

On the left side of the corridor, 5.43 m from the entrance, the architect had begun to cut an opening in the wall, presumably for a doorway. The opening measures  $1.50 \times 0.77$  m (maximum) and is about 27.0 cm deep, the back being extremely rough and irregular. The top and bottom of the opening follow the slope of the ceiling and corridor. At the end of the corridor the abandoned workings of the ancient masons are to be seen in the form of four large steps, preceded by a diagonal groove in the floor, and with a channel behind the steps. A large hole in the ceiling to the right in this part of the corridor, and another deep crevice, must have added to the difficulties of the architect, but these defects were not considered detrimental to finishing the corridor since the crevice at least was once filled with stone chippings wedged in with plaster. Larger pieces of stone could similarly have been employed in the gaping hole in the ceiling and plastered into place, though no trace of these survive (1). In this tomb the 'bruise' marks of the dolerite pounders used in breaking up the limestone are everywhere apparent.

The debris outside the tomb differs from that seen in the dumps outside Tombs 28 and 29, consisting of rubble removed from the face of the cliff by the ancient workmen as a preliminary to cutting the entrance. Only a few sherds were found by us in the trenches cut in the dumps by Pendlebury's expedition.

- 1. Plaster. From ceiling of First Corridor. Sample 1.
- 2. Vertebrae of animal. From First Corridor, in mud deposit. Sample 27.

For pottery see Appendix 2.

#### TOMB No. 28

(Plates 5, 6, 12, 13)

This tomb is cut in a soft crumbly stratum of limestone. The entrance opens out at the level of the wâdi bed. So broken and damaged is the descending stairway that it resembles in some ways a natural cave in the rock, though parts of the dressed side walls are still preserved. These were doubtless plastered in their finished state to mask the many imperfections in the bedrock, though no trace now remains. The ceiling of the stairway beneath the rock face is roughly dressed.

Some twenty-one steps, mostly shallow and crudely cut, give access to the doorway, on the jambs of which are remains of white plaster. There is no central slide. The steps themselves are very damaged and worn, and entirely broken away on the right (south) side below the sixth step.

#### Room 1

The first room, though very rough in appearance in its present greatly damaged state, was originally finished and the ceiling corners squared off. On the ceiling and the walls (just below the ceiling) are extensive remains of white plaster, as fresh as when it was first applied. A stairway (see below) gives access from this chamber to Room 3. To the left a doorway opens to Room 2. The north-west and south-west corners of Room 1 are not cut away at the lowest level, indicating that the work was never finished.

#### Room 2

The entrance is extremely badly damaged, but that proper white-plastered door jambs were once present is proved by the remains of the upper part of one to the east. Most of the plaster on the ceiling has fallen. The walls and floor are exceedingly damaged and pitted, but traces of a bright white plaster at ceiling level show that the walls were originally smoothed. The floor is full of holes and fissures. There would have been ample room here for a burial and funerary equipment.

<sup>(1)</sup> Similar arrangements are to be seen in the private tombs at Thebes, in cases where the rock is particularly bad.

#### Room 3

The rough stairway from Room 1 consists of four high steps, much broken. The door is crude in the extreme, and was never completely cut. In its present state it looks like the entrance to a cavern, and the room beyond also resembles that natural feature. The ceiling has largely fallen away, and the floors and walls are not completely cut back. However, it is clear from the presence of a very white plaster on the ceiling and on the east, south, and west walls, that the room even in its incomplete state was prepared for occupancy, and there would have been adequate space for an interment and the requisite equipment.

Throughout Tomb no. 28 the signs of the tools of the ancient workmen are apparent on the walls and ceiling. The damage may have been due to iconoclasm.

Unless otherwise stated the following objects were found in the dump outside the tomb entrance.

- 3. Body sherd from red-ware vessel, incised  $pr-h\underline{d}$ , 'treasury'. 15.0  $\times$  10.5 cm. Cat. 1. Plate 22.
- 4. Handle and part of the body of buff-ware amphora, the handle incised with owner's marks: (a) top of handle; (b) midway on handle; (c) bottom right of handle. Cat. 2. Plate 24.
- 5. Body sherd from red-ware vessel, the surface bearing a scratched decoration.  $12.0 \times 9.0$  cm. Cat. 3. Plate 23.
- 6. Body sherd from red-ware vessel, the surface having a plaster wash or coating, and incised with owner's mark.  $12.5 \times 8.2$  cm. Cat. 4. Plate 23.
- 7. Base of buff-ware amphora incised with owner's mark. Cat. 5. Plate 23.
- 8. Body sherd from red-ware vessel, the surface having a plaster wash or coating, and incised with owner's mark.  $3.8 \times 5.9$  cm. Cat. 6. Plate 23.
- 9. Body sherd from buff-ware vessel, the surface having a plaster wash or coating, and with a faint trace of ink.  $4.9 \times 5.5$  cm. Cat. 7. Plate 19.
- 10. Body sherd from buff-ware amphora (?), with faint trace of ink.  $10.5 \times 13.8$  cm. Cat. 8. Plate 24.

- 11. Body sherd from buff-ware vessel, with traces of ink docket (?).  $6.8 \times 7.4$  cm. Cat. 9. Plate 18. See Appendix 1.
- 12. Body sherd from red-ware vessel, with ink docket of Year 3 in hieratic.  $9.5 \times 7.0$  cm. Cat. 10. Plate 17. See Appendix 1.
- 13. Body sherd from buff-ware vessel, with faint traces of ink docket (?).  $8.8 \times 9.5$  cm. Cat. 11. Plate 19.
- 14. Small body sherd from buff-ware vessel, with traces of ink docket.  $6.5 \times 3.6$  cm. Cat. 12. Plate 18. See Appendix 1.
- 15. Body sherd from buff-ware vessel, with hieratic docket in ink.  $7.3 \times 4.9$  cm. Cat. 13. Plate 18. See Appendix 1.
- 16. Small body sherd from red-ware vessel having a plaster wash or coating, with traces of hieratic docket. 4.4 × 4.4 cm. Cat. 14. Plate 19. See Appendix 1.
- 17. Shoulder fragment from buff-ware amphora, with hieratic docket.  $13.4 \times 10.0$  cm. Cat. 15. Plate 18. See Appendix 1.
- 18. Three joining sherds from buff-ware vessel, probably an amphora, with hieratic docket of Year 14. 17.6 × 11.9 cm. Cat. 55. One sherd was found on the bed of the side wâdi (1), the other two sherds were found in the dump outside the tomb. Plate 17. See Appendix 1.
- 19. Bronze implement, probably a chisel, in two pieces. Some corrosion.  $12.8 \times 0.5 \times 0.4$  cm. Cat. 56. Plate 22.
- 20. Plaster stopper or bung from an amphora, oval topped. No trace of seal impression. Diam. 11.2 cm. Cat. 62. Plates 15, 22.
- 21. Four fragments of faience, probably from inlays. Two fragments blue, two greenish-blue. No decoration. Max.  $2.5 \times 2.2 \times 0.5$  cm (underedges chamfered). Min.  $1.3 \times 1.2 \times 0.4$  cm. Cat. 64. Plate 16.
- 22. Two fragments of faience, probably from inlays. One fragment green, with sign (?) in blue resembling ],  $2.2 \times 1.5 \times 0.5$  cm. Second fragment blue, no decoration,  $1.3 \times 1.1 \times 0.5$  cm. Cat. 65. From Room 3. Plates 16, 21.

<sup>(1)</sup> The sherd with the year-date.

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- 23. Twenty-nine fragments of faience, probably from inlays. Some blue, some faded to greenish-blue, no decoration. Max.  $3.1 \times 3.5 \times 0.4$  cm (under-edges chamfered). Min.  $0.8 \times 0.7 \times 0.4$  cm. Cat. 66. Plate 16.
- 24. Plaster. From wall of Room 1. Sample 2.
- 25. Small lump of blue substance. Sample 13. See Appendix 4.
- 26. Small body sherd from red-ware vessel, with traces of yellow substance. Sample 14.
- 27. Small rim fragment from red-ware vessel, with traces of yellow substance. Sample 15.
- 28. Animal bones, including vertebrae. Sample 16. See Appendix 3.
- 29. Fragment of jawbone of animal. Sample 19. See Appendix 3.
- 30. Bone. Sample 20. See Appendix 3.

For pottery see Appendix 2.

#### TOMB No. 29

(Plates 7, 12, 13)

The tomb is cut in a hard rock stratum, the entrance being at the level of the wâdi bed, at a slightly higher level than Tomb no. 28. The rock here is extremely intractable and full of fissures and holes.

Nineteen shallow steps give access to the entrance doorway. Three further steps made of separate pieces of stone may not be ancient, but may have been positioned for ease of access when the tomb was investigated in modern times. The stairway is much worn and broken, particularly on the right (south) side. There is no central slide for a sarcophagus. The side walls of the stairway are now rough, but were clearly originally dressed, and traces of white plaster remain here and there. The door jambs are similarly plastered. Throughout the tomb there is clear evidence of 'bruise-marks' on the walls, indicative of the use of pounders.

#### FIRST CORRIDOR

The first great descending corridor is full of water-made fissures in the floor. That the latter was white plastered is shown by the junction of the plaster at floor and wall. A large rock fall has left an enormous gash in the ceiling near the entrance. Even large and deep imperfections in the stone were 'made good' by the ancient masons, as is shown by large lumps of plaster with smooth undersurfaces, found by us in the dump outside the tomb. Other pieces were noted in the wâdi bed. Further down the corridor extensive remains of white plaster are to be seen on the ceiling. In all cases (here as well as in Tomb 28) the plaster seems to have been applied directly to the bedrock, the rough nature of which afforded a good 'purchase'. There is some smoke blackening on the ceiling.

#### SECOND CORRIDOR

The second descending corridor is entered through a door with white plastered jambs. The ceiling and walls are likewise plastered, but there is no surviving trace of that material on the floor, where it perhaps was applied, but has since been washed away.

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#### THIRD CORRIDOR

The door and jambs of the third corridor, the floor of which is level, are white plastered. The ceiling, walls, and floor have been roughly dressed but not plastered.

#### FOURTH CORRIDOR

The doorway and jambs of the fourth descending corridor, though dressed, were never plastered. Work was still going on in this area when work was abandoned. The two-stepped workings of the masons are still apparent at the further end. The ceiling, floor, and walls have been roughed out but not plastered.

There would have been adequate room for a burial here, or perhaps more likely in the preceding level corridor, even though the burial room proper was never completed. Even in its unfinished state the tomb is very impressive, and was clearly intended for royal occupancy.

Unless otherwise stated the following objects were found in the dump outside the tomb.

- 31. Small body sherd from buff-ware vessel, with hieratic docket.  $6.9 \times 4.0$  cm. Cat. 16. Plate 18. See Appendix 1.
- 32. Body sherd from buff-ware vessel, with sketch of a man facing right, holding a bird in his right hand.  $7.5 \times 10.3$  cm. Cat. 17. Plate 20.
- 33. Base fragment of buff-ware vessel, with incised mark. Width 16.0 cm. Cat. 18. Plate 23.
- 34. Fragment of body and handle of buff-ware amphora, the handle incised with a sign. Cat. 19. Plate 22.
- 35. Fragment of body and complete handle of buff-ware amphora, the area below the handle being stamped with an oval containing the text, pr-dw;t Nfr-nfrw-r', 'inner (burial) chamber of Neferneferure'' (1). Cat. 20. Plates 15, 21.

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- 36. Small body sherd from red-ware vessel, having a plaster wash or coating, with a sketch of a gazelle's head facing right. There are indeterminate traces in the upper right corner. 5.3 × 3.8 cm. Cat. 21. Plate 20.
- 37. Body sherd from red-ware vessel, with sketch of a female head, with large earring, facing left.  $7.4 \times 8.2$  cm. Cat. 22. Plate 20.
- 38. Small body sherd from red-ware vessel, with incised potter's (or owner's ?) mark.  $3.5 \times 5.7$  cm. Cat. 23. Plate 23.
- 39. Small body sherd from red-ware vessel having a plaster wash or coating, with faint traces of a sketch showing two animals' heads, possibly a leopard and an ox.  $5.7 \times 4.7$  cm. Cat. 24. Plate 20.
- 40. Body sherd from red-ware vessel having a plaster wash or coating, with a bold sketch of a leopard's head and human head facing left.  $13.5 \times 11.5$  cm. Cat. 25. Plate 21.
- 41. Small body sherd from buff-ware vessel, with hieratic docket.  $5.8 \times 3.5$  cm. Cat. 26. Plate 17. See Appendix 1.
- 42. Small body sherd from red-ware vessel, with ink traces.  $4.9 \times 4.7$  cm. Cat. 27. Plate 19.
- 43. Body sherd from buff-ware vessel, incised  $pr \dots$  (?).  $11.0 \times 10.7$  cm. Cat. 28. Plate 22.
- 44. Body sherd from buff-ware vessel, with incised sign.  $7.8 \times 5.4$  cm. Cat. 29. Plate 24.
- 45. Body sherd from buff-ware vessel, incised with potter's (or owner's ?) mark.  $10.8 \times 6.9$  cm. Cat. 30. Plate 23.
- 46. Body sherd from red-ware vessel having a plaster wash or coating. incised with potter's (or owner's ?) mark.  $9.7 \times 5.2$  cm. Cat. 31. Plate 24.
- 47. Small body sherd from buff-ware vessel, with faint trace of hieratic docket. 8.1 × 4.6 cm. Cat. 32. Plate 19. See Appendix 1.
- 48. Body sherd from red-ware vessel, bearing incised potter's (or owner's ?) mark.  $8.6 \times 3.5$  cm. Cat. 33. Plate 23.
- 49. Body sherd from buff-ware vessel incised  $pr[-h\underline{d}]$  (?).  $9.5 \times 9.5$  cm. Cat. 34. Plate 22.
- 50. Body sherd from buff-ware vessel incised with potter's (or owner's ?) mark.  $5.5 \times 9.0$  cm. Cat. 35. Plate 24.

<sup>(1)</sup> Nfr-nfrw-r' seems certain. The lower part of the impression is blurred, but the left sign with very little doubt is , with a 'blob' in the middle and below (not drawn). The right sign seems to be \*. The sealing is deeply incised sideways beneath the handle.

- 51. Body sherd from buff-ware vessel, with faint trace of hieratic docket.  $9.5 \times 5.4$  cm. Cat. 36. Plate 18. See Appendix 1.
- 52. Small body sherd from red-ware vessel, with incised potter's (or owner's?) mark. 7.4 × 3.9 cm. Cat. 37. Plate 24.
- 53. Small body sherd from red-ware vessel, with incised potter's (or owner's ?) mark.  $5.4 \times 4.7$  cm. Cat. 38. Plate 23.
- 54. Body sherd from buff-ware vessel, with hieratic docket. 10.3 × 12.3 cm. Cat. 39. Plate 19. See Appendix 1.
- 55. Body sherd from red-ware vessel having a plaster wash or coating, with regular ink marks or downstrokes. 10.6 × 6.1 cm. Cat. 40. Plate 19.
- 56. Body sherd from red-ware vessel, with ink mark.  $9.7 \times 5.0$  cm. Cat. 41. Plate 20.
- 57. Body sherd from red-ware vessel, with ink mark, nfr, 'good'.  $14.3 \times 5.9$  cm. Cat. 42. Plate 20.
- 58. Small body sherd from buff-ware vessel, with traces of ink design (?).  $6.4 \times 4.5$  cm. Cat. 43. Plate 20.
- 59. Small body sherd from red-ware vessel, with ink trace.  $4.4 \times 2.5$  cm. Cat. 44. Plate 17.
- 60. Small body sherd from red-ware vessel, with part of a sign, probably m, in ink.  $3.7 \times 3.4$  cm. Cat. 45. Plate 19.
- 61. Body sherd from buff-ware vessel, with faint traces of ink design (?).  $9.4 \times 7.0$  cm. Cat. 46. Plate 19.
- 62. Body sherd from red-ware vessel having a plaster wash or coating, with a trace of an ink design.  $7.3 \times 4.5$  cm. Cat. 47. Plate 20.
- 63. Small body sherd from buff-ware vessel, with hieratic docket of Year 10 + x?.  $4.7 \times 4.9$  cm. Cat. 48. Plate 17. See Appendix 1.
- 64. Small body sherd from buff-ware vessel, with trace of an ink sketch.  $7.3 \times 3.8$  cm. Cat. 49. Plate 20.
- 65. Small body sherd from buff-ware vessel, with ink design.  $4.0 \times 3.6$  cm. Cat. 50. Plate 20.
- 66. Small body sherd from buff-ware vessel, with trace of ink.  $2.7 \times 3.2$  cm. Cat. 51. Plate 19.
- 67. Small body sherd from buff-ware vessel, with hieratic docket of Year 16.
  6.2 × 4.9 cm. Cat. 52. Plate 17. See Appendix 1.

- 68. Four joining sherds from buff-ware vessel, with an ink design of female offering bearers, facing right, arms raised.  $21.7 \times 17.2$  cm. Cat. 53. Plate 21.
- 69. Two joining body sherds from buff-ware vessel, with hieratic docket.  $12.5 \times 11.7$  cm. Cat. 54. Plate 18. See Appendix 1.
- 70. Bronze needle or pin, end broken, some corrosion. Length 7.7 cm. Diam. 0.2 cm. Cat. 57. Plate 22.
- 71. Small fragment of ribbed wood, surface worn.  $2.5 \times 1.6 \times 0.5$  cm. Cat. 58. Plate 22.
- 72. Small piece of red-brown cloth, coarse weave. Approx.  $8.7 \times 1.2$  cm. Date uncertain. Cat. 59.
- 73. Lower part of a shabti coffin of wood, traces of blue on wig. Hollowed out and painted red (traces only). The back part is in the form of the 'flap' of the 'Archaic' wig. Ht. 12.5 cm. Width 5.2 cm. Max. depth approx. 1.7 cm. Surface much worn and pitted. Cat. 60. Plates 15, 21.
- 74. Four fragments of faience, probably from inlays. Three fragments blue, one greenish-blue. No decoration. Max.  $5.1 \times 2.9 \times 0.7$  cm. Min.  $1.2 \times 0.8 \times 0.4$  cm. Cat. 67. Plate 16.
- 75. Plaster. From wall of First Corridor. Sample 3.
- 76. Shaped fragment of ochre. Sample 4.
- 77. Shoulder fragment from buff-ware vessel, probably an amphora, with traces of green substance. Sample 5. See Appendix 4.
- 78. Small body fragment from red-ware vessel, with traces of blue substance. Sample 6. See Appendix 4.
- 79. Small body fragment from red-ware vessel, with traces of yellow substance. Sample 7. See Appendix 4.
- 80. Body fragment from red-ware vessel, with traces of yellow substance. Sample 8.
- 81. Body fragment from red-ware vessel, with traces of yellow substance. Sample 9.
- 82. Body sherd from red-ware vessel, with traces of green substance. Sample 10.
- 83. Body sherd from red-ware vessel, with traces of blue substance. Sample 11.

- 12 )
- 84. Small body sherd from red-ware vessel, with traces of blue substance. Sample 12.
- 85. Bones. Sample 21. See Appendix 3.
- 86. Shell. Sample 22.

For pottery see Appendix 2.

#### ----- (13)----

# BED OF SIDE WÂDI

- 87. Small incised fragment, back plain, perhaps from inlay. Material uncertain.  $2.1 \times 0.5 \times 0.2$  cm. Cat. 61. Plate 22.
- 88. Four fragments of faience (1), probably from inlays. One blue, three greenish-blue. No decoration. Max.  $1.5 \times 1.2 \times 0.5$  cm. Min.  $1.4 \times 1.1 \times 0.5$  cm. Cat. 63. Plate 16.
- 89. Pottery fragment, doubtless from a storage vessel, with an hieratic docket bearing the prenomen of Amenophis III. Found by Alessandro Barsanti in or near Tomb 27. No other details available.

Bibl.: MARTIN, The Royal Tomb at El-'Amarna, i, 74, no. 268.

For pottery see Appendix 2. See also 18.

# ROCK LEDGE AT END OF SIDE WÂDI

90. Skull of animal. Sample 17. Plates 25-7. See Appendix 3.

<sup>(1)</sup> Some of the pieces of faience [21-3, 74, 88] have traces of plaster on the undersurface.

#### TOMB No. 30

(Plate 14)

This tomb is situated on the north side of the Royal Wâdi (the side opposite the Royal Tomb). The architect had begun to cut a tomb of simple type in this location in the hard rock stratum at the level of the wâdi bed. In its unfinished state it consists of an entrance passage some 1.22 m wide (narrowing to 1.0 m at the doorway), and about 2.30 m deep at its maximum. Whether rock-cut steps were to have been provided is unsure. The floor in this area is very rough. The side walls and the area above the door were originally carefully dressed.

The doorway opens into a room of which only the preliminary cutting was made before work was abandoned. At its highest the room is 1.10 m, and its maximum width is some 2.20 m. There is no trace of plaster anywhere in the tomb.

As far as can be judged, Pendlebury's examination of the edges of the bed of the Royal Wâdi in 1935 (1) was thorough. An enormous amount of debris was removed and redistributed, partly to the side of the wâdi to form a kind of causeway for a path leading to the Royal Tomb entrance.

#### CONCLUSIONS

When Akhenaten founded his 'Horizon of the Aten' no doubt he visualized it existing in perpetuity. The area chosen for the settlement itself is vast, with scope for unlimited development in terms of housing and public buildings. The large fertile area on the west bank of the Nile, which the Boundary Stelae make clear were also within the city limits, would have supported a large population, and produce could (and did) come in from other parts of Egypt and even abroad to provide for the inhabitants.

The site of the royal necropolis too must have been chosen with great care. East of the city and branching off from the main Wadi Abû Ḥasaḥ el-Baḥri, are a number of sites potentially available for the cutting of tombs for many generations to come. The area actually selected by Akhenaten was remote enough to afford a measure of security, yet not too far as to create problems of access for teams of workmen and guards. It is probable that the workmen went daily to the site, either from the Workmen's Village and environs southwest of the entrance to the main wadi, or from the main city and its residential suburbs. There appears to be no large settlement, whether stone-built or otherwise, any nearer the necropolis.

Though the desert behind the city is enormous in extent, in point of fact the builders seemed to prefer to locate the royal tombs in certain kinds of areas, given the premise that the entrances to the funerary monuments were to be cut at or just above the level of the bed of the wâdis. First, for security reasons while the tombs were being hewn out, and for ease of guarding subsequently, they had to be located fairly close together (as were also those in the Kings' and Queens' Valleys at Thebes). Second, ideally they should be sited in cul-de-sac wâdis, as with the 'Amarna Royal Tomb (no. 26) and the unfinished tomb (no. 30) nearby, and the two tombs (nos. 28, 29) in the side wâdi, or in a main wâdi if the site chosen could be carefully masked after the interment (as no. 27). Up until the Twentieth Dynasty a real effort seems to have been made to disguise the entrances to the royal tombs. From the Twentieth Dynasty no attempt was made to conceal the main door, which at this period was monumental, decorated, and inscribed. Indeed, there is some evidence to indicate that a kind of 'pylon' of rubble was built up

<sup>(1)</sup> Martin, The Royal Tomb at El-'Amarna, i, 9-10.

outside the tombs of this period, pointing the way to the entrances (1). From the abundance of pottery and other material associated with Tombs 28 and 29 in the side wâdi it seems clear that burials took place there. The stamped amphora handle (Cat. 35) with the name of Neferneferure, fourth daughter of Akhenaten, found in the dump at the entrance to Tomb 29, is particularly significant, suggesting that her burial was there; or just possibly in the adjacent Tomb 28, in view of the admixture of material emanating from the two monuments.

The size of Tomb 29, even in its unfinished state, is remarkable. Tomb 27, in the main wâdi, is also extremely impressive but without evidence of occupancy. For lack of concrete evidence it can only be suggested that both tombs were intended ultimately for senior members of the 'Amarna royal family. The accession of Tut'ankhaten at Akhetaten would have necessitated the preparation of a burial place for him in the royal necropolis, especially as, at this stage, there seems to have been no intention of returning to Memphis or the royal burial grounds in Western Thebes. From its monumental scale, and from the presence of a descending slide at the entrance for the sarcophagus (a distinctly kingly feature) Tut'ankhaten's 'Amarna tomb could well have been the unfinished no. 27. Other members of the royal house would have had to be provided for even earlier, once they were in residence in the new capital: the Queen, her daughters (Mekitaten certainly, and Meritaten possibly, were buried in the Royal Tomb proper), the minor wives of Akhenaten, and others named on the monuments from the town site.

The presence of some large bones and teeth of bovids from the side wâdi, and the skull of a bovid (not necessarily associated with these) from the rock ledge at the end of the side wâdi, are also suggestive, though proof is lacking that any of this material is to be identified as the burial of a Mnevis bull (2), provision for which was supposed to be made in the 'mountain' east of Akhetaten, according to the earlier version of the Boundary stelae.

#### APPENDIX 1

#### HIERATIC DOCKETS

#### By Anthony LEAHY

- 14. The figure '20' (?) survives, probably, to judge from its isolated position, not part of a date but a unit of measure, cf. Leahy, in Kemp, Amarna reports, II (London, 1985), 65, nos. 41-2. There is a blob of ink at the bottom right of the sherd.
- 17. Probably part of a personal name:
- 18. From a meat jar, with the year date 14. Almost all the surviving text is legible:

Restore: h:t-sp 14 [iwf dr n hb 'Itn n] mswt 'Itn ..., etc., on the basis of Fairman, in Pendlebury, City of Akhenaten, III (London, 1951), 170-1.

- 31. Probably a wine-jar label, if hry b'h is to be read at the beginning of the second line.
- 54. Contains the name of the Aten, and probably the end of a personal name in the second line:

# **\* 拉 位**

- 63. With the year date  $10 + \times ? : \{ \ \ \ \ \ \ \}$ . Traces of a second line below.
- 67. From a wine jar, with the year date  $16: \{\hat{0}, \hat{0}\}$

The others (11, 15, 16, 41, 47, 51, 59, 69) appear to be too fragmentary to be intelligible.

<sup>(1)</sup> Romer, Valley of the Kings (London, 1981), 198.

<sup>(3)</sup> For basic references to Mnevis see K[ákosy], in LdÄ IV, cols. 165-7. For the skeleton of a bull found in the tomb of Tuthmosis III see Loret, BIE 9 (1898), 94, and for the carcass of an 'embalmed' bull in the tomb of Seti I, Belzoni, Narrative of the operations ... in Egypt and Nubia' (London, 1822), I, 365.

#### APPENDIX 2

#### THE POTTERY(1)

By Pamela J. ROSE

During the Spring of 1984 I was asked to examine the pottery found whilst work was being carried out in the Royal Necropolis at El-'Amarna by Dr Aly el-Khouly and Dr Geoffrey T. Martin on behalf of the Organisation of Egyptian Antiquities. Substantial numbers of sherds had been recovered from both inside the tombs being cleared and more especially from the dumps outside, though there were no complete vessels. Constraints on time made it possible for me to spend only two days examining the pottery, and therefore, to get an overview of the types present, I concentrated on the rim sherds. In less detail I also looked at the bases, handles, and decorated pieces. Dr Martin carried out the task of sorting the material into these categories. Sherd fabric, surface treatment, and where possible the type of vessel from which the piece came were noted, and sketches were made when necessary. In a few cases detailed drawings were made. The following report must therefore be considered as preliminary, and is intended only to give an idea of the pottery present. Since all the pieces found have been stored in the Wâdi area it will be possible for a more detailed analysis to be made in the future, and for the reconstruction of vessels to be undertaken.

The pottery came from four locations in the necropolis: Tombs 28 and 29 and the wâdi in which these were cut, as well as Tomb 27 and its associated dumps. Most of the pottery from the last of these locations was of Coptic date, and included fragments of unresinated amphorae of heavy brown siltware, with marked angular ribbing on the exterior. The type is well known, and

is found throughout Egypt and Nubia, dating from the fifth to seventh centuries AD and later (1). There were also many fragments from thinner-walled vessels in a hard reddish-brown siltware, unslipped, with narrowly-spaced flat ribbing on the exterior. Amongst the rest of the pottery, joins were found between pieces from the wâdi and from Tomb 28, and between Tombs 28 and 29, and this is a measure of the amount of disturbance that has taken place in the area since ancient times.

In the following descriptions of each location, marl clay pieces are described first, then siltwares. In each case closed forms are discussed before open forms. Detailed descriptions of vessel types are given in the case of Tomb 28 only; to avoid repetition the reader is asked to refer back to these for the material from other areas. The commonest types are illustrated in Fig. 2. Except for numbers 1 and 4 the drawings are intended to give an indication of the 'generalized' type rather than the specific vessel shape (this is necessary because rims of the same shape can come from slightly different vessel types. For example, the same shaped rim can derive from either a flat-bottomed or a round-based bowl). The drawings are taken from the fundamental 'Amarna town-site publication (2), with slight modifications.

#### Томв 28

Marl clay storage vessels are represented in this tomb by a number of types: amphorae or wine jars, very large storage vessels known as 'meat jars', and smaller, decorated jars. Amphorae were present in large numbers to judge by the amount of rim and base fragments preserved. These were of two types: those with a long neck of relatively narrow diameter, with a rounded, externally thickened rim, rounded shoulder on which are placed vertical handles, and a narrow, slightly pointed base (Fig. 2, no. 1); and those having a more pronounced, angular shoulder, a short neck with externally thickened flaring rim, and a ridge around the base of the neck (Fig. 2, no. 2). The former was found most frequently in a hard, reddish fabric,

<sup>(1)</sup> In respect of Tombs 28 and 29 with few exceptions the sherds were found in the dumps outside the tomb entrances. In the following commentary the pottery from such dumps is described as if came from the individual tombs, though it should be remembered that some admixture of this disturbed material must have occurred in antiquity and perhaps in more modern times. G.T.M.

<sup>(1)</sup> See for example Jacquet-Gordon, Les ermitages chrétiens du désert d'Esna, iii. Céramique et objets (Cairo, 1972), 6, Types P3 and P4; Egloff, Kellia. La poterie copte (Geneva, [1977]), 110.
(2) Pret and Woolley, The City of Akhenaten, i (London, 1923), pls. 46-54.

speckled with tiny white limestone flecks, and usually has a burnished cream-slipped exterior. The latter occurred in two distinct fabrics, one a dense orange paste which contained conspicuous black particles and was unslipped, the other a sandy greyish to yellow fabric which was usually cream-slipped but unburnished. The first of these fabrics may be an import, possibly Canaanite. In the case of the cream-burnished jars, Tomb 28 contained ten complete bases, as well as handles and rims. The second type was present in approximately the same numbers, but with the cream-slipped type greatly outnumbering the unslipped 'foreign' version. Several of the sherds from the latter type show traces of a thin gypsum plaster coating on the outside.

The large storage pots or 'meat jars' (so-called by the excavators of the 'Amarna town-site because of the coincidence of dockets referring to meat with this shape of vessel, Fig. 2, no. 3) occur in a fabric similar to that of the cream-burnished amphorae, but of a darker brownish shade, and containing decomposed limestone particles. The surfaces are covered with a thick matte cream-coloured slip. Only a few sherds of this type were identified, probably comprising only two vessels, one rather larger than the other.

The smaller storage jars have a short, upright, thickened rim, and a ring base, although the curve of the base of the vessel proper protrudes beyond the ring and therefore renders it useless for standing the jar upright. They are usually of a dense, pinkish-brown fabric, containing tiny limestone pieces and red particles. In many cases this fires to create a creamish exterior surface, but sometimes the vessels are slipped. The exterior in probably all cases is decorated in black or dark red paint, the decoration consisting of rim ticks, a series of five bands around the upper shoulder crossed through by vertical slashes, and sometimes at least, a simplified lotus pattern below this. One or more bands may encircle the maximum diameter of the vessel (Fig. 2, no. 4) (1). A closely related type is a jar with a longer, narrower neck, but with the same thickened rim, fabric, and probably decoration, although it is not clear whether the lotus pattern appears on this type.

These storage jars proved, on a purely numerical basis, to be the commonest marl clay type present, though this is due to the presence of the easily-

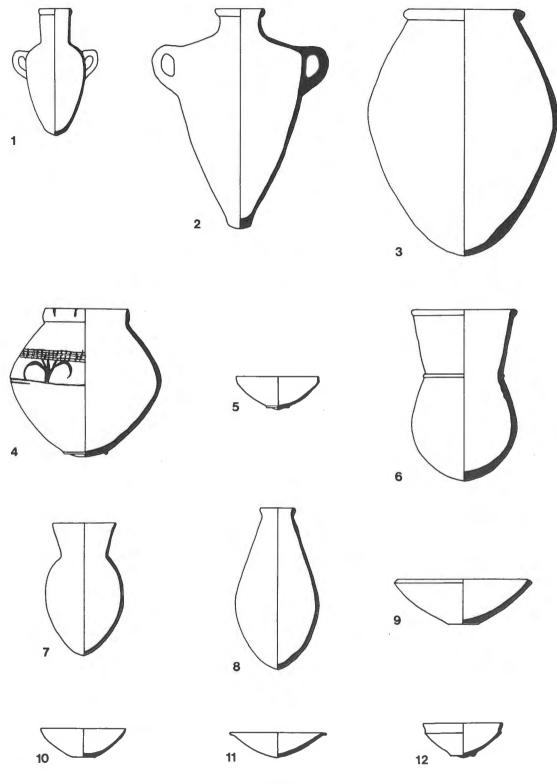


Fig. 2.

<sup>(1)</sup> PEET and Woolley, op. cit., pl. 12, 1.

distinguishable decorated body sherds. It is not possible to make more than a guess at the number of vessels the sherds represent, but I would suggest that there were at least half a dozen. Identifiable sherds of the necked version of this type were very few, and probably indicate the presence of a single vessel.

The only other marl clay closed form identified is that of a jar, similar in fabric and surface treatment to the burnished amphorae, but with horizontally-placed handles, running across the shoulder rather than joining the shoulder to the upper body.

Open vessels in marl clay are rare, and only occur in the tomb in a single form, viz. a ring-footed bow with internally thickened rim (Fig. 2, no. 5). This type is often decorated with rim ticks in dark red or black paint. The fabric is the dense pinkish clay with white firing surface, but occasionally the reddish-brown limestone tempered variety is used. In this case the surfaces are cream-slipped. There were at least three such vessels.

In the siltwares, open forms predominate over closed. The latter are, in fact, most uncommon. They are represented by large biconical storage jars with an externally thickened rim (Fig. 2, no. 6), smaller biconical or funnel-necked vessels with plain rims (Fig. 2, no. 7), and short-necked jars with either a simple flaring rim or external thickening (e.g. Fig. 2, no. 8), a category which is something of a 'catch-all'. The first of these types occurs in a somewhat harder siltware than the others, containing more sand and limestone and less chaff. They are usually unslipped, although some exhibit a chalky creamish-coloured exterior which may be intentional. The smaller biconical and short necked jars are usually red-slipped, although the type with plain short flaring rim seems to occur more frequently in an unslipped state.

Large biconical jars are represented by only a few rim fragments, and several sherds which come from the point of transition between the vessel shoulder and neck. In the latter case the neck has been removed, and the resulting broken edge shows clear wear-marks from its re-use as a potstand. Five blue-painted sherds from a thick-walled large closed vessel may well come from one of these large biconical jars.

The smaller biconical jars are more common than the preceding type, but sherds are still not numerous. Most pieces come from the short-necked jars with thickened rims, at least four of which were present: one of these seems to have been identical in shape to the decorated marl clay storage jars, except that the decoration consisted of the bands encircling the shoulder without the cross-hatching. The simpler form with straight flaring rim has been recognised from one sherd only.

Other closed forms identified are a small situla-like vessel, red-slipped, of which the base and a large part of the wall are preserved; a fine-ware vase with blue-painted decoration on a cream slip (1); and a fragment from a fine red-polished vessel with a long slender neck, the rim of which was externally thickened and modelled. The second of these, the blue-painted vase, had traces a black substance adhering around the interior of the rim, possibly connected with the original sealing of the vessel.

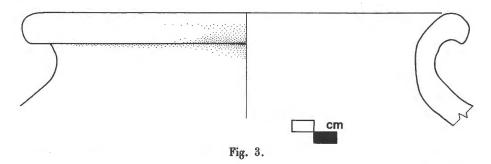
Four types of open siltware vessels were identified: large open bowls with a square or flanged rim, usually flat-based, and which are either unslipped or have a red-slipped rim (Fig. 2, no. 9); plain flat-based bowls with incurving or straight sides, which are red-slipped (Fig. 2, no. 10); bowls with out-turned rims, which are red-slipped and polished (Fig. 2, no. 11); and carinated bowls, which are usually ring-based and decorated with encircling bands below the rim and rim ticks on either a red or a cream background slip, or sometimes a combination of both (Fig. 2, no. 12). All these types occur in a relatively soft, light-brown siltware, although the carinated bowls sometimes occur in the harder and more gritty fabric.

The potsherds indicate the presence of about four large open bowls, two of which are gypsum coated on the interior; one is heavily burnt. The most common vessel type in the tomb is represented by the simple rimmed bowls. These occur in two varieties: a fine ware with red polished surfaces, and a red-slipped, matte version. The latter considerably outnumber the former. The polished vessel (since there is probably only one in the ensemble) shows traces of burning. Some of the matte vessels preserve traces of yellow pigment or gypsum on the interior, and also often show signs of burning. There are at least ten such vessels. Sherds from bowls with out-turned rim are fewer in number, there probably being only one vessel. Carinated bowls are more common, and there were at least four such vessels in the tomb.

<sup>(1)</sup> PEET and Woolley, op. cit., pl. 49, no. XXV/232.

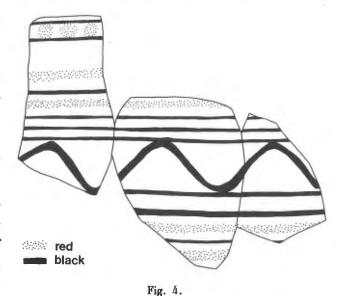
Fragments of two potstands were recovered. The first is a low ring stand, the other a tall offering stand, identified from rim sherds and base fragments. In shape it consists of an open bowl with wide out-turned rim on a solid cylindrical stand with a hollow foot, the latter being pierced near the lower edge. The whole vessel was encrusted with gypsum plaster (1).

Two other items deserve to be mentioned: a weathered rim sherd, hand-made, of a reddish siltware, containing large amounts of coarse chaff. This



may well be Old Kingdom in date (see Fig. 3). The second is a group of sherds, some of which were also found in the wâdi bed. These are from a

siltware jar (though the identification of this fabric is not certain) which has been cream-slipped, and on which red and black painted decoration has been applied. The style of this decoration is more closely associated with the early and middle parts of the Eighteenth Dynasty (see Fig. 4 for the field sketch made of these pieces. A thin coating of gypsum on the exterior



(1) See Hulin, 'Pottery cult vessels from the Workmen's Village'. In Kemp, Amarna reports, i (London, 1984), 165-77 for a discussion of such vessels.

---- ( 25 ) ----

of the sherds obscures detail which could otherwise have been shown by photography).

Томв 29

This tomb produced by far the largest number of sherds, although these for the most part replicate the types found in Tomb 28.

Cream-burnished amphorae occur in approximately equal numbers to the wide-mouthed, short-necked type with a cream surface slip, there being about seventeen of each. The unslipped, 'imported', type are considerably fewer, there being about three in all. Eight shoulder sherds of the cream-slipped wide-mouthed type preserved traces of polychrome decoration, applied after the vessel had been fired. A handle fragment from a vessel of this type preserved part of an owner's mark, incised into the vessel after firing. This was in the shape of a cross.

Fragments of three 'meat jars' were found, all of which varied slightly from the type described in Tomb 28, in that the rim showed only a slight internal thickening, and in one case this was missing altogether.

Decorated storage jars appear in quantity, there being probably about half a dozen such vessels. There are rather more sherds of the necked variant of this type.

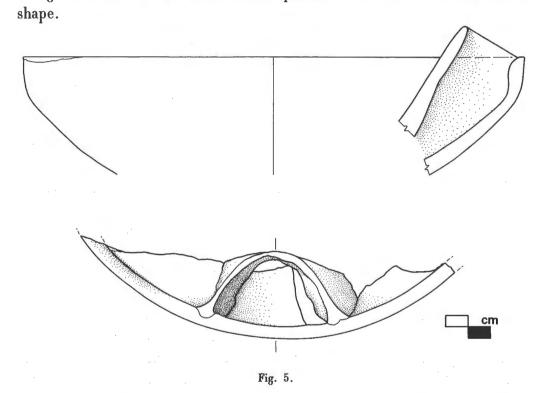
A few rim sherds were found of a further marl closed vessel form. This was identical to the cream-burnished amphora in fabric and surface treatment, and in shape was from a vessel with a tall slender neck and an angular down-turned rim (1). However, no identifiable horizontal handles were recovered from this context. A single handle, again in the same fabric and with the same surface treatment, was found, and came from a miniature version of an amphora-like vessel (2).

Marl clay open forms are again represented by the carinated form described in Tomb 28, and by at least four other carinated bowls. One further fragment of an open vessel was found, again probably in the fabric used for the creamburnished amphora, though in this case unslipped. The unusual feature

<sup>(1)</sup> See for example, PEET and Woolley, op. cit., pl. 52, no. LXXVI/228.

<sup>(1)</sup> In., ib., pl. 51, no. XLIII/1055 A.

of this was that the interior of the vessel contained a single 'tubular' compartment (possibly more), which ran at an angle to the pot walls so that the opening to the tube projected well above the level of the rim of the pot itself (see Fig. 5). The illustration is taken from the drawing of an identical piece found during the course of excavations in the Workmen's Village in 1981. I can think of no explanation or function for this vessel



Large siltware biconical jars are represented by only two rim sherds, which preserve traces of a thin gypsum coating on the exterior of the vessel. A further sherd from this type of vessel shows the same break-marks and signs of reuse as mentioned in Tomb 28. The smaller red-slipped biconicals are considerably more common, and often have traces of a black pitch-like substance adhering to the rim as in the case of the vessel mentioned in the section dealing with Tomb 28. Short-necked storage vessels are also common, and occur in both the plain and thickened-rim varieties in about equal numbers. These again include siltware imitations of the marl storage jar with a simplified

decorative scheme. A few of these vessels show traces of a gypsum coating on the exterior.

A large number of blue-painted body and rim sherds were found, and these appear to come from a single large biconical vessel with thickened rim. Further sherds came from a jar with blue-painted decoration on a matte red background. Other forms included another piece of a small red-slipped situla-like vessel.

Open forms were the most abundant vessel types. At least five large open bowls with squared rims were present, all of which showed signs of burning on the interior. The ordinary bowls were the most common vessel type in the tomb. I would estimate the presence of at least forty such. Some of these also show signs of burning on the interior and/or exterior, and others contain gypsum plaster or pigment. The polished plain bowls are rare, there being probably only two vessels, one of which has gypsum plaster on its interior. One polished bowl with out-turned rim is present, coated internally and externally with gypsum plaster. Rim sherds suggest that there were a large number of decorated carinated vessels, possibly as many as thirteen. None of these shows any sign of burning or any substances adhering.

Two sherds were recovered of a somewhat unusual strainer bowl, in a siltware with a cream slip. On its interior a crescent-shaped wall projected, to approximately the level of the bowl rim, this wall being pierced with randomly placed holes. Similar vessels were encountered at Deir el-Medîna (Fig. 6, a, b) (1).

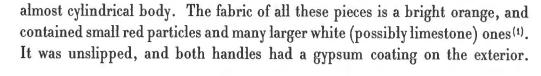
The only non-containers are four further fragments of the low ring stand found in Tomb 28 (2).

Finally, fragments of what appears to be a foreign vessel were found in the tomb. These fragments included the base of an amphora-like vessel and two handles. The base itself was flat, the walls curved up into a narrow,

<sup>(1)</sup> Nagel, La céramique du Nouvel Empire à Deir el Médineh, i (Cairo, 1938), 156-7, with pl. 2 (Type III).

<sup>(3)</sup> PEET and WOOLLEY, op. cit., pl. 46, no. I/214 for the basic shape. The example from the Royal Wâdi has vertical supports running between the rim and base on the exterior, see Rose, in MARTIN, The Royal Tomb at El-Amarna, ii (forthcoming).





#### Wâdi BED

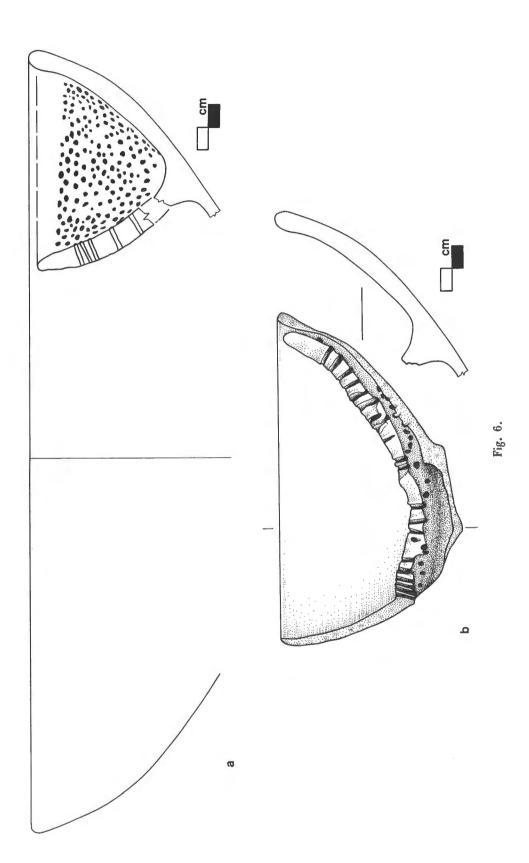
Not surprisingly, sherds from the same types of vessels as are found in Tombs 28 and 29 come from the wâdi in which they are situated, though only rarely in sufficient quantity to suggest the presence of a whole vessel. These sherds are obviously the result of the disturbance of the contents of the tombs, and were subsequently washed into the wâdi by floodwaters. Pieces that can be definitely assigned to vessels from either Tomb 28 or 29 include several more of the cream-slipped siltware sherds with the earlier Eighteenth Dynasty decoration, and a rim sherd from a red-polished funnel-neck jar with externally thickened and modelled rim, pieces of which also occur in Tomb 28.

Amphorae of all three types are present, as well as 'meat jars' and large numbers of sherds from decorated storage jars. There is also a fragment from a vessel in the same fabric as the cream-burnished amphora, with horizontallyplaced handles.

Sherds from large biconical jars are rare, but include a few pieces re-used as potstands, and also several pieces with blue-painted decoration from heavy jars such as these. Funnel-neck and short-necked jars are also present, as are the full repertoire of bowls, often burnt and with a coating of gypsum plaster. One fragment of a tall offering stand probably from the vessel already mentioned from Tomb 28 was found, heavily encrusted with gypsum plaster.

#### Томв 27

Very few sherds came from the work in Tomb 27, situated in the main wadi, and the majority of these were from a period considerably later than the Eighteenth Dynasty (see above, pp. 18-19). Pieces of 'Amarna date are restricted to a few sherds of a red-slipped siltware bowl with plain rim and



<sup>(1)</sup> See Peer and Woolley, op. cit., pl. 51, no. XLIII/1015 for what was probably the vessel shape, although no rim sherds were recovered.

a flat base, which came from the deposit (1) at the entrance of the tomb, and a number of red-slipped body sherds which probably came from biconical jars. The latter come from both the same undisturbed context, the debris at the top of the staircase, and also from the descending corridor of the tomb.

#### Conclusions

The quantity and nature of the material present in the tombs and wâdi strongly suggests that the pottery represents part of the tomb furnishings, especially in the case of the number of fine-ware storage vessels such as amphorae. The only exception to this is in the case of the re-used biconical jar necks, which can hardly be envisaged as forming part of the tomb equipment. The repertoire of types present in Tombs 28 and 29 is remarkably consistent, even when the disturbance of the tombs' contents is taken into consideration. The variety of wares and forms can be paralleled from the contents of Tut'ankhamūn's tomb, which contained both 'wine jars' (our amphorae), and 'red pottery' in the form of jars, craters, vases and cups, amongst other forms mentioned (2). These are siltwares. Some were bluepainted, although unfortunately it is not possible to attribute these to more precise types.

The traces of burning seen on a number of the bowls, and occasionally on other vessel types, are puzzling, since the burning is frequently not restricted to the interior but is on all surfaces or sometimes just around the rim of the vessel. The latter may be lamps, although this is not a likely explanation for the large open bowls. The burning seen on closed vessel forms, such as on a number of sherds from at least one funnel-necked jar in Tomb 28, was presumably accidental. Any deliberate firing of the tomb contents would presumably have left its mark on a wider range of vessel types (3).

Finally it should be added that some potsherds had already been extracted for cataloguing purposes from the body of material before I examined them.

These were pieces with potters' marks, owners' marks, and dockets, and these were surprisingly common, at least compared with the number found in the Workmen's Village.

Dockets, as one would expect, occur almost entirely on the amphorae with cream-burnished surfaces, although surprisingly they are found only rarely on the cream-slipped wide-mouthed type.

Potters' marks (i.e. marks made before the pot was fired) were less common than the dockets. Only three were found: an incised sign at the base of an amphora handle (Cat. 34), part of a sign which appears to be the lower part of the sign § (Cat. 7) on a rounded base of cream-slipped marl clay, very possibly from a 'meat jar', and an incised mark on the exterior of a marl clay storage jar with thickened rim (Cat. 33).

Post-firing 'owners' marks' are by far the most abundant, and include incised marks and drawings or signs in ink and charcoal. The types of vessel on which these occurred were varied, but include many red-slipped silt ware closed forms, and open bowls of both large and small sizes. The cream-slipped wide-mouthed amphorae also often had incised or ink markings on the shoulder, in one case containing an identifiable hieroglyph, and in another the top of the handle was marked with an incised star composed of three crossing lines at its top.

The white gypsum coating noted on many of the sherds from the Royal Wâdi (1) was also seen in the tomb of Tut'ankhamūn, here being associated specifically with the sealing of siltware jars (2). This was done by means of plaster applied over inverted pottery saucers. Two types of lid are mentioned: the shaped lid with projecting flange which fits into the neck of the vessel, and inverted saucers. None of the former type has been identified amongst the pottery under discussion. In the case of the saucers it is possible that rim fragments would have been incorporated with plain bowl rims. However, none of the bowl rim fragments from any of the locations seemed on visual examination to come from vessels with a diameter significantly less than about 20.0 cm. The lids are usually of smaller dimensions. A similar sealing

<sup>(1)</sup> Doubtless the original 'spoil' from the cutting of the tomb.

<sup>(2)</sup> Murray and Nuttall, A handlist to Howard Carter's catalogue of objects in Tut'ankhamūn's tomb (Oxford, 1963), catalogue nos. 197, 406, 9, 15 a, and many others.

<sup>(3)</sup> And on the walls and ceilings of the tombs themselves, where there is no evidence of burning, except perhaps in Tomb 29, first corridor.

<sup>(1)</sup> Rose, in Martin, The Royal Tomb at El-Amarna, ii (forthcoming).

<sup>(2)</sup> ČERNÝ, Hieratic inscriptions from the tomb of Tut'ankhamūn (Oxford, 1965), 4.

method but without the pottery lid was used for the large storage jars (of the same type as that illustrated in Fig. 2, no. 6), found nearby Tut'ankhamūn's tomb (1). These held the embalming materials and the remnants of the funerary banquet. Winlock notes that in the sealing process the whole pot was whitewashed (2). This accounts for the gypsum incrustations on the storage jars. That on the siltware open vessels is presumably not derived from sealing, since the plaster coating can occur on the interior, or exterior, or both surfaces of the vessel. It is possible that in some cases the bowls were left by the workmen preparing the tomb. However, it may be associated with the practice of coating certain vessels used in a religious context, presumably to purify them, which was noted by the excavators in the Workmen's Village at 'Amarna (3), and which has been confirmed during the recent excavations, where it has been noted to apply especially to tall offering stands and large open bowls (4). The presence of bowls containing pigments may perhaps also derive from work on the tombs, but pigments also formed part of the contents of Tut'ankhamūn's tomb (5), although here they were in shell containers rather than pottery bowls.

#### APPENDIX 3

## SKELETAL REMAINS (1)

#### By Nasry ISKANDER

The following bones were submitted for analysis:

- 1. Skull, in fragile and deteriorated state. From rock ledge above end of side wâdi. [90]. Plates 25-7.
- 2. About nine vertebrae.
- 3. Molar.
- 4. Other bones.

#### 1. SKULL.

The mandible and the body of the maxilla were not found, neither was the zygomatic bone. The zygomatic process of the temporal bone (left side) was preserved. From the frontal view we observe that the nasal cavity is hollow

(1) Dr Juliet Clutton-Brock was kind enough to examine slides of certain of the specimens, and comments as follows:

#### Slide 1

Five vertebrae, possibly lumber vertebrae of an ox (unsexed cattle). The epiphyses seem to be lost, therefore possibly a juvenile animal. Also a talus (in posterior view), probably ox. Slide 2

Skull, probably ox. A fragment of skull with horn core is certainly cattle (cow, bull or ox). There are also thoracic vertebrae from juvenile cattle on this slide, and fragments of rib.

Of some interest are the long axis and cervical vertebrae. These look like camel but could be equid. In addition there appears to be an upper cheek tooth of an equid.

#### Slide 3

The same bones and teeth as in slide 2.

The determinations are only provisional, owing to the difficulty of identifying skeletal material from photographs or slides, especially when the specimens are fragmentary. The additional examination of a tooth showed that it is the upper third left molar from a large bovid, probably from a large domestic bull, either of the *Bos taurus* type, or perhaps from the Indian humped *Bos indicus* type.

<sup>(1)</sup> WINLOCK, Materials used at the embalming of King Tūt-'ankh-amūn (New York, 1941).

<sup>(2)</sup> In., ib., 6.

<sup>(3)</sup> PEET and Woolley, op. cit., 100.

<sup>(4)</sup> Rose, in Kemp, op. cit., 140.

<sup>(5)</sup> Murray and Nuttall, op. cit., catalogue no. 620.

----- ( 34 ) • • • • •

without nasal bone. The cavity of the orbit is without the zygomatic bone, but a part of the zygomatic process was found. The foramen magnum and occipital condyle are extant. The cornual process was not found, but the intercornual protuberance survives. The ptergoid processes of the basisphenoid and palatine bones are absent.

From these facts, and especially from the ventral view of the specimen, from the presence of the foramen magnum with occipital condyle and part of the attachment of the ptergoid process, and from the form and size of the intercornual protuberance, we can assert that the specimen is the skull of an ox.

#### 2. VERTEBRAE.

Possibly ox, to judge from the size and length.

#### 3. Molar.

From the upper jaw, possibly the first or second molar. The occlusal surface of the specimen shows that an herbivorous animal is involved, the size indicating an ox.

We examined some additional bones, which proved not be to those of an ox, but possibly from a camel (?). ---- ( 35 )·c+--

#### APPENDIX 4

#### OTHER ANALYSES

#### By Nasry ISKANDER

The following samples from Tombs 28 and 29 have been examined, and the results are tabulated below.

$$1 = \text{Cat. } 77, \quad 2 = \text{Cat. } 79, \quad 3 = \text{Cat. } 78, \quad 4 = \text{Cat. } 25.$$

Table (1). The essential X-ray diffraction data of sample no. (1) Green.

No. of JA DI		R.I.	α-quartz SiO <sub>2</sub>		Arsenic Sulfide As	
refln.	dA	R.I.	dA	R.I.	dA	R.I.
1	5.44	53		·····	5.40	100
2	5.07	24				
3	4.25	24	4.26	35		
4	3.77	20				
5	3.66	18				
6	3.34	100	3.34	100		
7	3.03	31			3.08	20
8	2.80	36			2.73	80
9	2.76	55	2.28	12	2.73	80
10	2.25	41			2.26	30
11	1.87	39			1.85	60
12	1.82	24	1.81	30	1.81	30
13	1.71	. 14			1.71	10

Table (2). The essential X-ray diffraction data of sample no. (2) Yellow.

No. of refln.	dA	R.I.	Wollastonite dA	CaO.SiO <sub>2</sub> R.I.	Orthoclas dA	e KAL.Si <sub>3</sub> O <sub>8</sub> R.I.
1	7.44	7				
2	7.14	7				
3	4.96	3				
4	4.23	5			3.24	60
5	4.15	6				
6	3.87	7	3.83	80	3.87	10
7	3.79	14			3.79	100
8	3.55	3			3.56	20
9	3.34	16	3.31	80	3.33	100
10	3.21	4	3.16	5	3.22	90
11	2.99	100	2.97	100	3.00	60
12	2.83	4	2.80	10		
13	2.66	3				
14	2.48	10	2.47	60		
15	2.44	6				
16	2.39	11	2.33	40		
17	2.08	11	2.08	5		
18	1.98	3	1.98	20		
19	1.92	7	1.91	20		
20	1.90	13				
21	1.88	13	1.88	20		
22	1.81	3	1.80	5		
23	1.71	3				
24	1.62	3				
25	1.60	5	1.60	40		
26	1.51	5	1.51	5		
27	1.43	4	1.45	30		
28	1.42	4	1.42	5		

TABLE (3). The essential X-ray diffraction data of sample no. (3) Blue-Red.

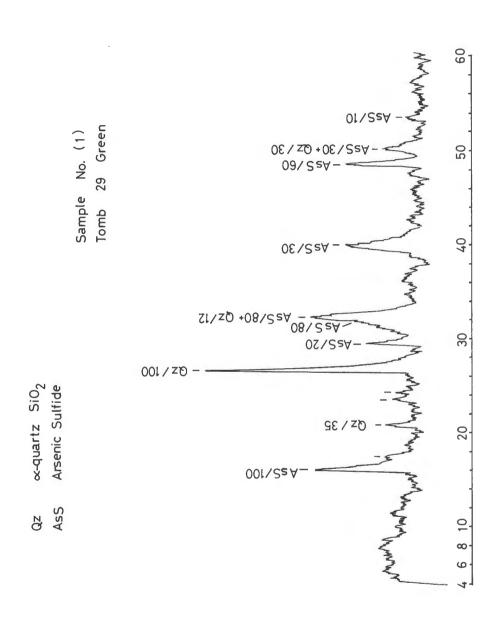
No. of refln.	dA	R.I.	α-quar dA	tz SiO <sub>2</sub> R.I.	Plagoclase dA	NaAlSi <sub>3</sub> O <sub>8</sub> R.I.
1	14.03	15				
2	9.83	15				
3	8.27	10				
4	6.33	7			6.39	20
5	6.15	7				
6	4.23	19	4.26	35		
7	4.02	10.5			4.03	16
8	3.75	10			3.78	25
9	3.62	9			3.66	16
10	3.33	100	3.34	100		
11	3.20	28			3.20	100
12	3.03	12				
13	2.84	8			2.84	2
14	2.51	10			2.51	2
15	2.44	10	2.46	12	2.44	4
16	2.13	8	2.13	9	2.13	8
17	2.10	8			2.12	6
18	1.83	5	1.81	17		
19	1.81	7				
20	1.67	7	1.67	7		
21	1.66	7	1.66	3		
22	1.53	5	1.54	15		
23	1.47	6	1.45	3		

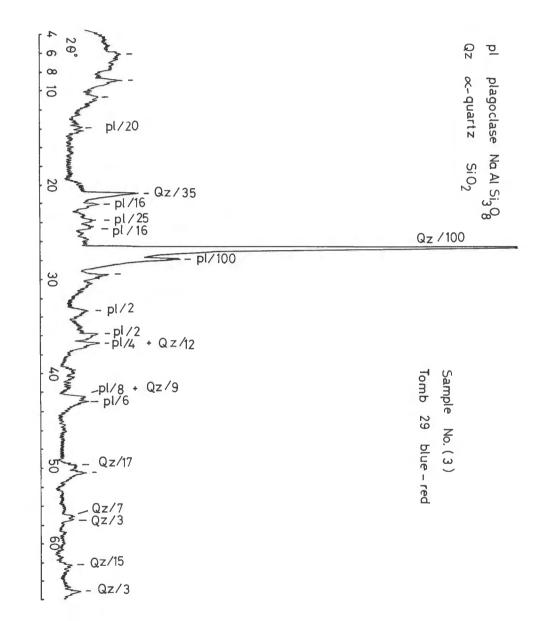
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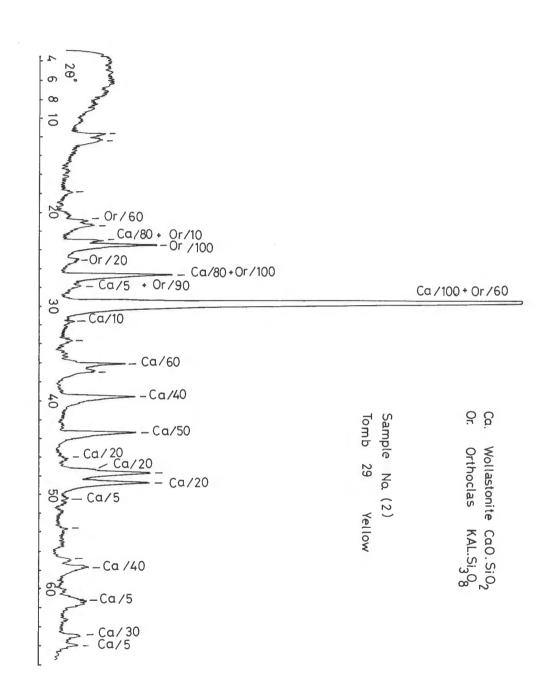
Table (4). The essential X-ray diffraction data of sample no. (4) Egyptian blue.

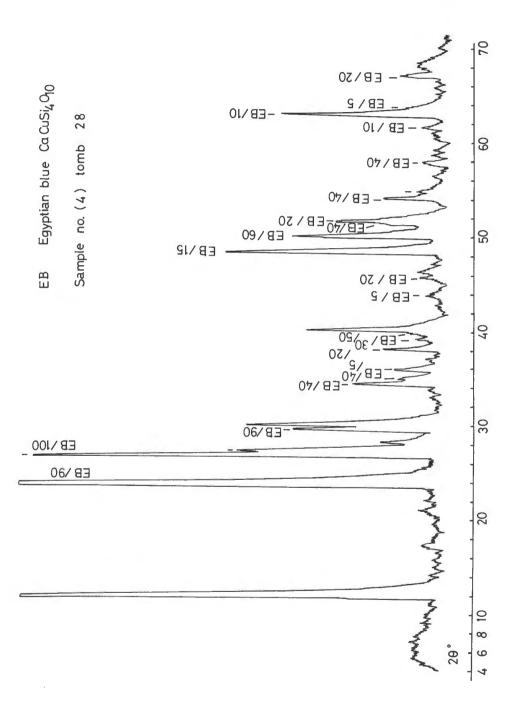
No. of refln.	$d\mathbf{A}$	R.I.	Egyptian blue dA	CaCuSi <sub>4</sub> O <sub>10</sub> R.I.
1	7.38	100		
2	5.13	6		
3	4.23	7		
4	3.74	100	3.78	90
5	3.31	97	3.29	100
6	3.25	49		
7	3.15	16		
8	3.02	36	3.00	90
9	2.97	47		
10	2.61	22	2.62	40
11	2.56	12	2.58	40
12	2.49	13	2.47	5
13	2.36	15	2.38	20
14	2.30	8	2.32	30
15	2.26	10	2.27	50
16	2.24	34		
17	2.06	5	2.06	5
18	1.98	8	1.98	20
19	1.96	8		
20	1.88	52	1.89	15
21	1.82	36	1.83	60
22	1.77	16	1.78	40
23	1.76	26	1.75	20
24	1.70	15	1.70	40
25	1.67	8		
26	1.59	7	1.60	40
27	1.50	7	1.52	10
28	1.48	40	1.48	10
29	1.48	10	1.46	5
30	1.40	12	1.40	20











# CONCORDANCE OF FIELD EXCAVATION NUMBERS AND PRESENT CATALOGUE NUMBERS (1)

Note: Catalogue numbers are in bold type.

1	:	3	15: 17	29:44	43:58	57 : <b>70</b>
2	:	4	16:31	30:45	44:59	58 : <b>71</b>
3	:	5	17:32	31:46	45 : <b>60</b>	59 : <b>72</b>
4	:	6	18:33	32:47	46:61	60:73
5		7	19:34	33 : <b>48</b>	47:62	61:87
6	•	8	20:35	34:49	48:63	62 : <b>20</b>
7	•	9	21:36	35 : <b>50</b>	49:64	63:88
8	:	10	22:37	36:51	50 : <b>65</b>	64 : <b>21</b>
9	:	11	23:38	<b>37</b> : <b>52</b>	51:66	65 : <b>22</b>
10	:	12	24:39	38:53	52:67	66 : <b>23</b>
11	:	13	25:40	39:54	53 : <b>68</b>	67:74
12	•	14	26:41	40:55	54:69	
13	:	15	27:42	41:56	55: 18	
14	:	16	28:43	42:57	56: 19	

<sup>(1)</sup> The objects found during the excavations are at present (1987) housed in the Mallawi Museum, unregistered.

### INDEX

Akhenaten: pp. vii, viii, 15, 16. Amenophis III: p. 13. Animal bones: pp. vIII, 2, 6, 12, 13, 33-4.Aten: p. 17. Barsanti, Alessandro: p. 13. Boundary stelae: pp. 15, 16. Bronze: pp. 5, 11. Bung: p. 5. Burning, blackening: pp. 7, 23, 27, 29, Canaanite pottery: p. 20. Chisel: p. 5. Cloth: p. 11. Clutton-Brock, Dr C.: p. 33. Deir el-Medîna: p. 27. Dockets: pp. 5, 8-11, 13, 17, 31. Faience: pp. 5, 6, 11, 13. Foundation deposits, lack of: p. 1. Gypsum: pp. 23, 24, 27, 29, 31, 32. Hieratic: pp. 5, 8-11, 13, 17. Huts, stone, in necropolis: p. vii. Inlays: pp. 5, 6, 11, 13. Iskander, N., contributions by: pp. 33, 35. Lamps: p. 30. Leahy, A., contribution by: p. 17.

Lehner, Mark: p. vII.

Mekitaten: p. 16. Memphis : pp. vп, 16. Meritaten: p. 16. Mnevis: p. 16. Needle : p. 11. Neferneferure': pp. 8, 16. nfr, 'good': p. 10. Ochre: p. 11. Old Kingdom sherd: p. 24. Owners' marks, on pottery: pp. 4, 9, 10, 25, 31. Pathways, in necropolis: p. vii. Pendlebury, J.D.S.: pp. viii, 2, 14. Pin: p. 11. Pitch: p. 26. Plaster: pp. 1-11, 13, 20, 24, 27. Potters' marks: pp. 9, 10, 31. Pottery: pp. vii, 2, 6, 12, 13, 18-32. See also Sherds. Pounders, dolerite: pp. 2, 7. pr-hd, 'treasury': pp. 4, 9. pr-dw;t Nfr-nfrw-r', 'inner (burial) chamber of Neferneferurë ': p. 8. pr ... (?): p. 9. Rose, Pamela J., contribution by: p. 18. Sealing: pp. 8, 31. Seti I: p. 16. Shabti coffin: p. 11. Shell: pp. 12, 32. Shelters, stone, in necropolis: p. vII. Sherds, pottery: pp. 4-6, 8-12. See also

Pottery.

## 

Stopper, plaster: p. 5.

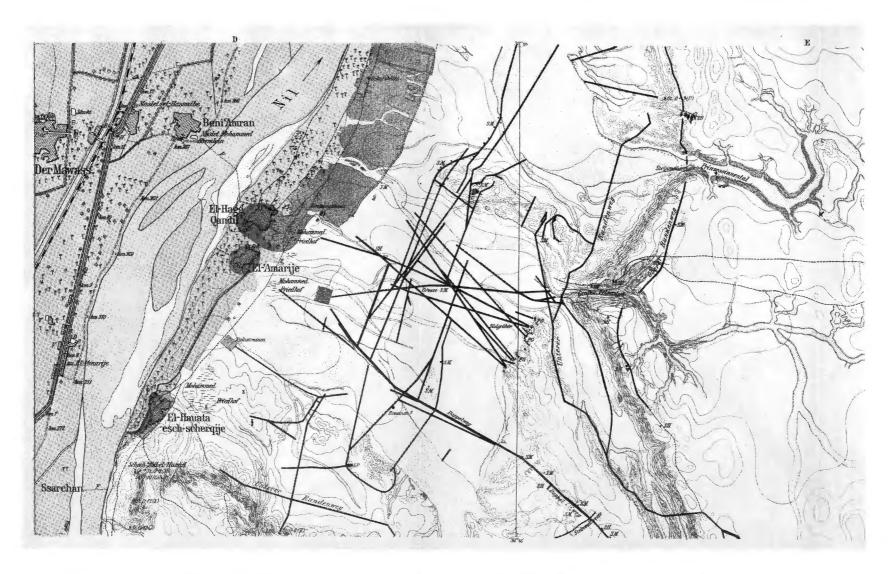
Tut'ankhaten: p. 16.
Tuthmosis III: p. 16.

Thebes: p. 16.
Tomb 55, Kings' Valley, Thebes: p. viii.
Tut'ankhamūn: pp. vii, 30-2.

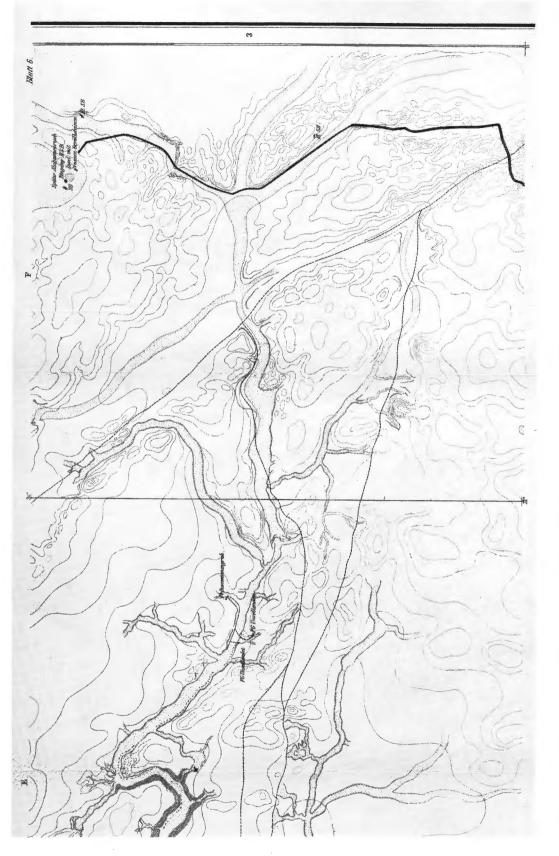
Wood: p. 11.

Workmen's Village: pp. 15, 26, 31, 32.

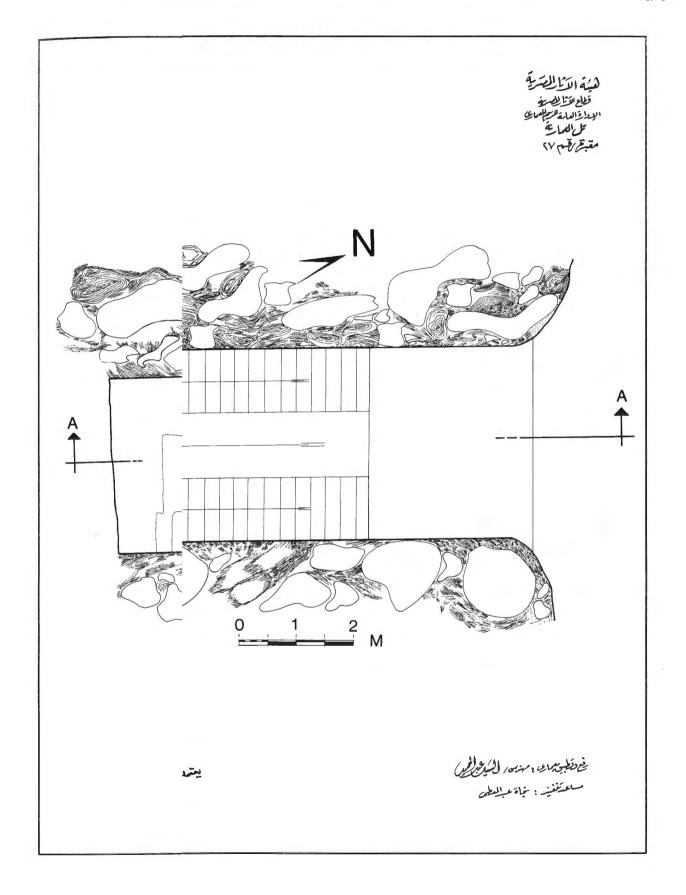
# **PLATES**

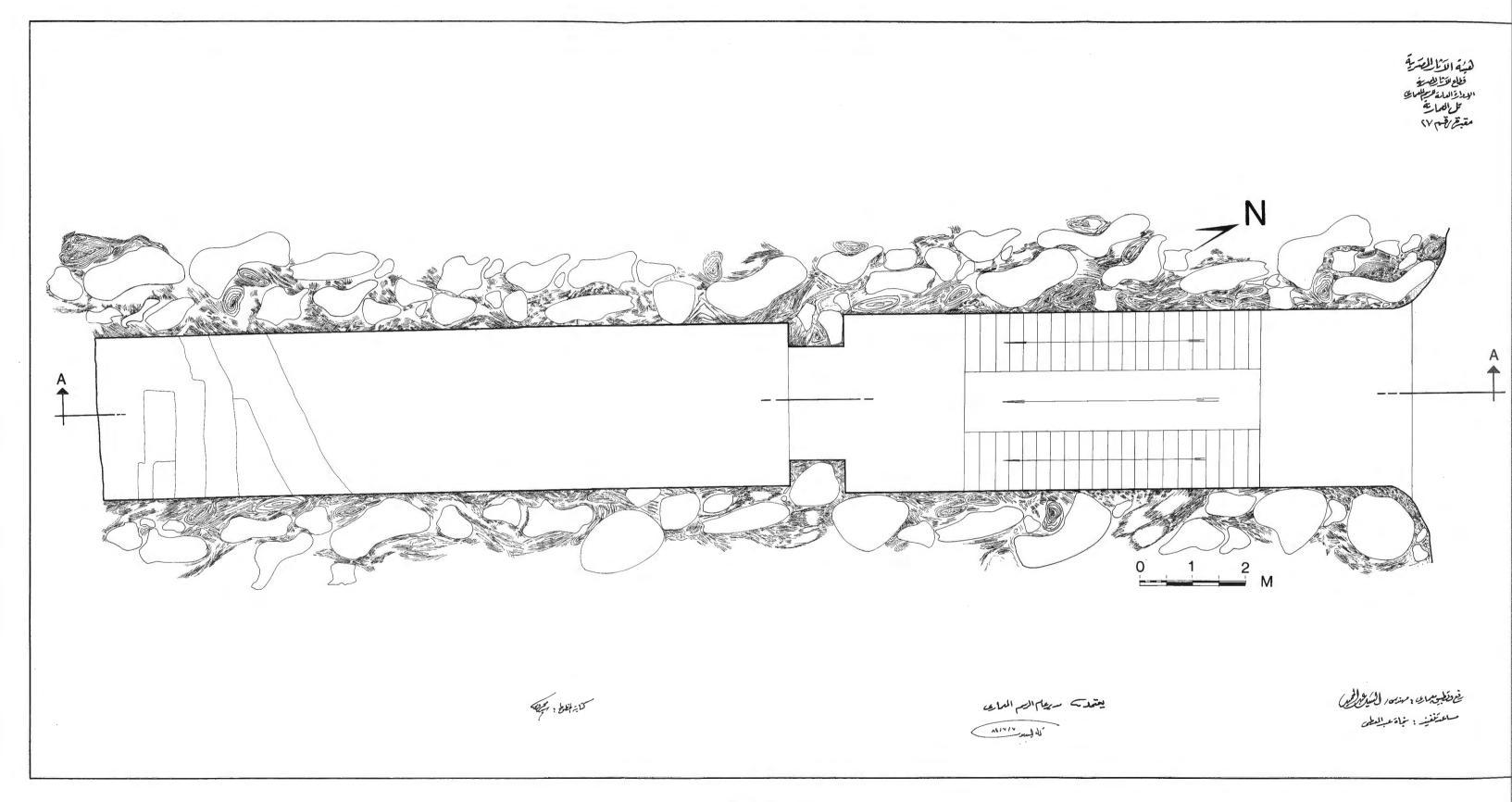


Map of the El-Amarna area, showing the Royal Necropolis. From Timme, Tell el-Amarna, pl. 6.

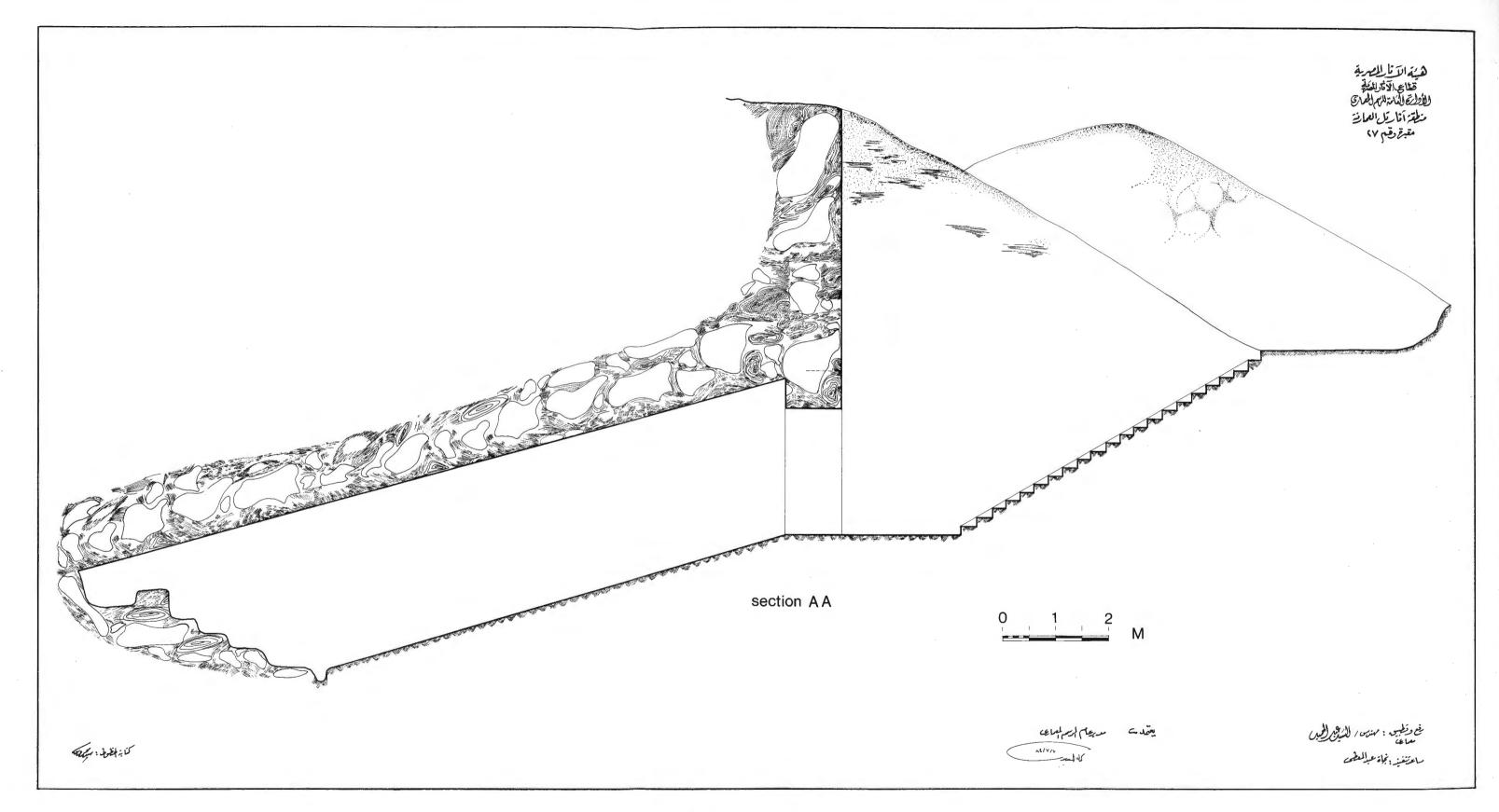


Map of the El-'Amarna area, continuation of preceding.

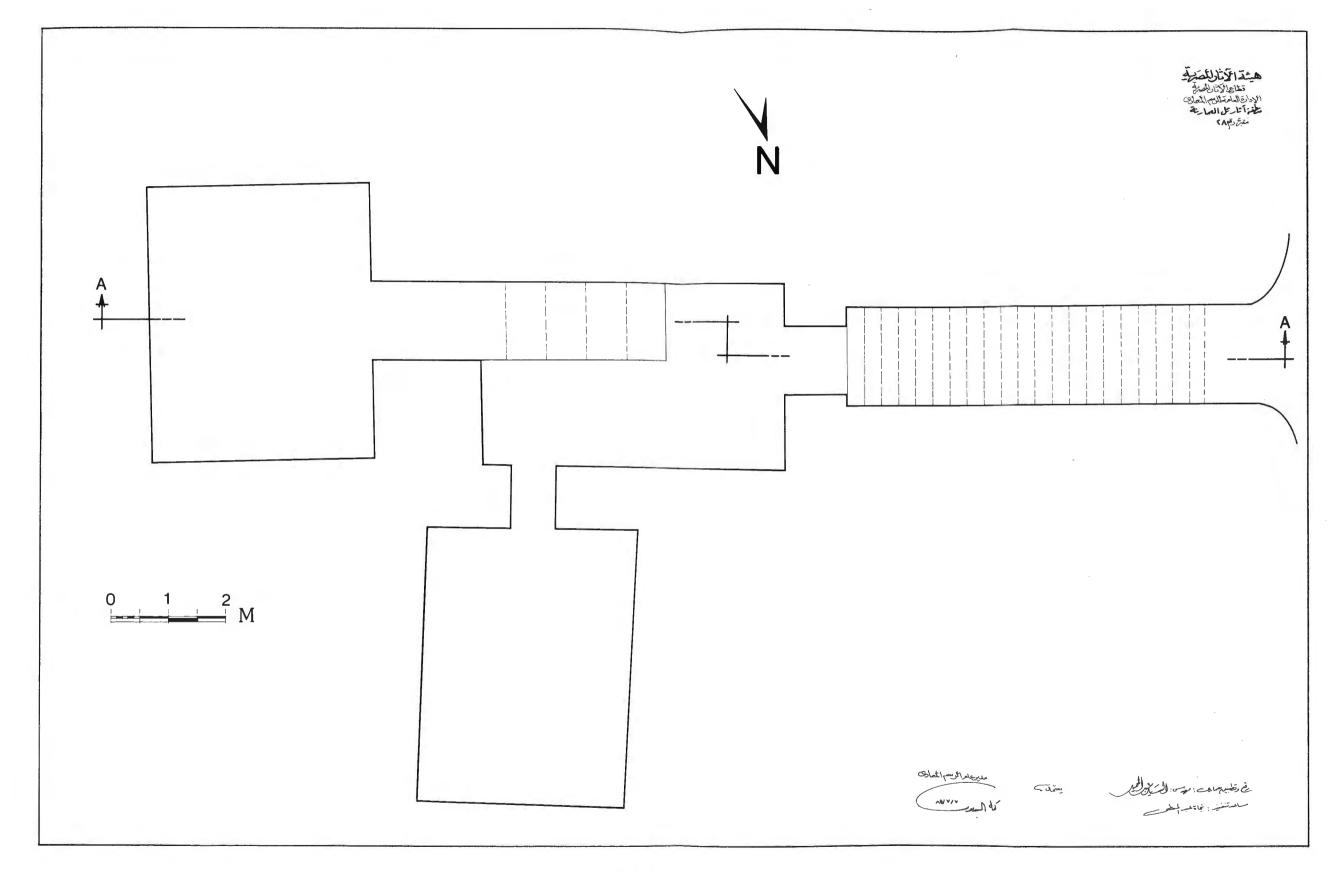




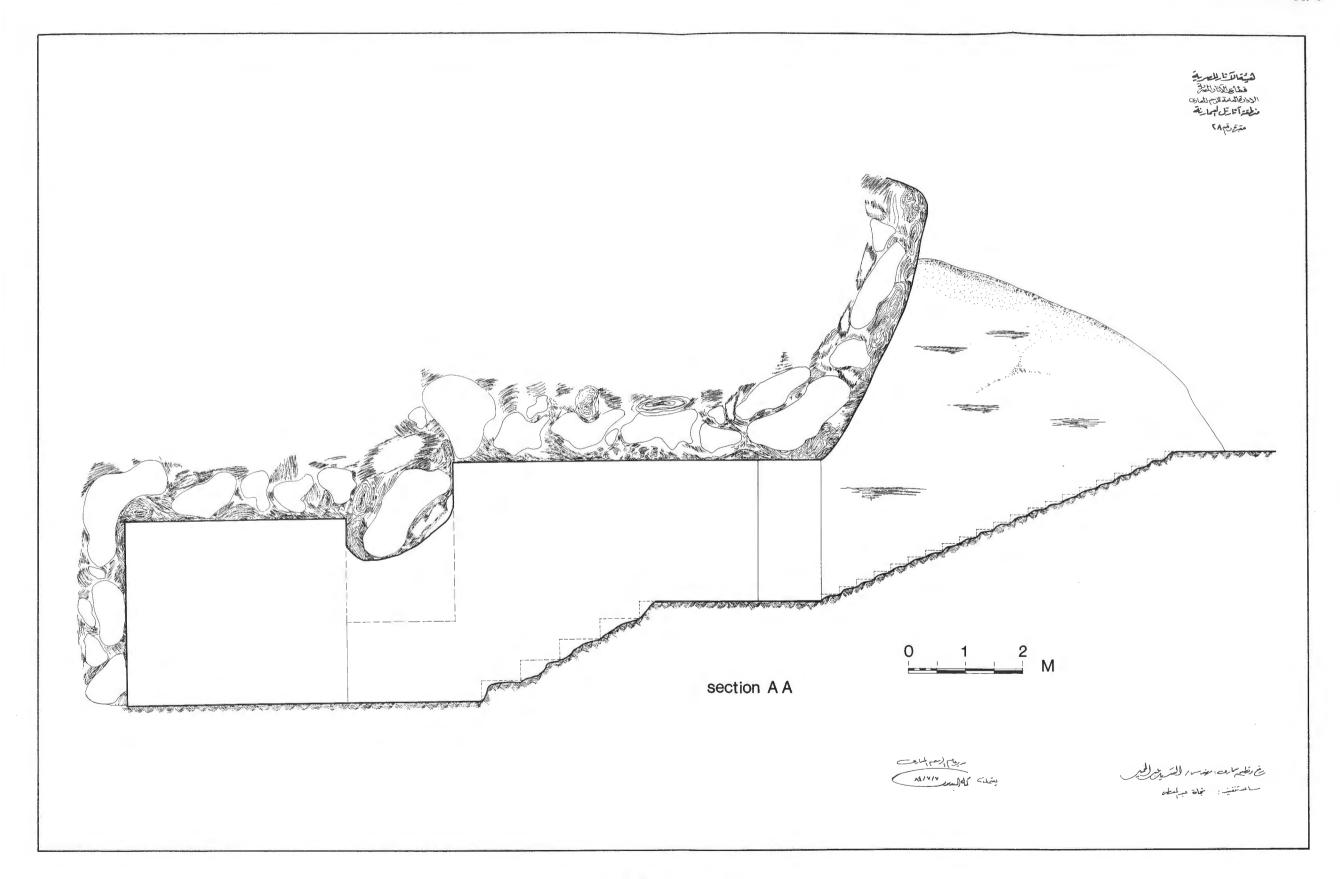
Tomb 27, plan.



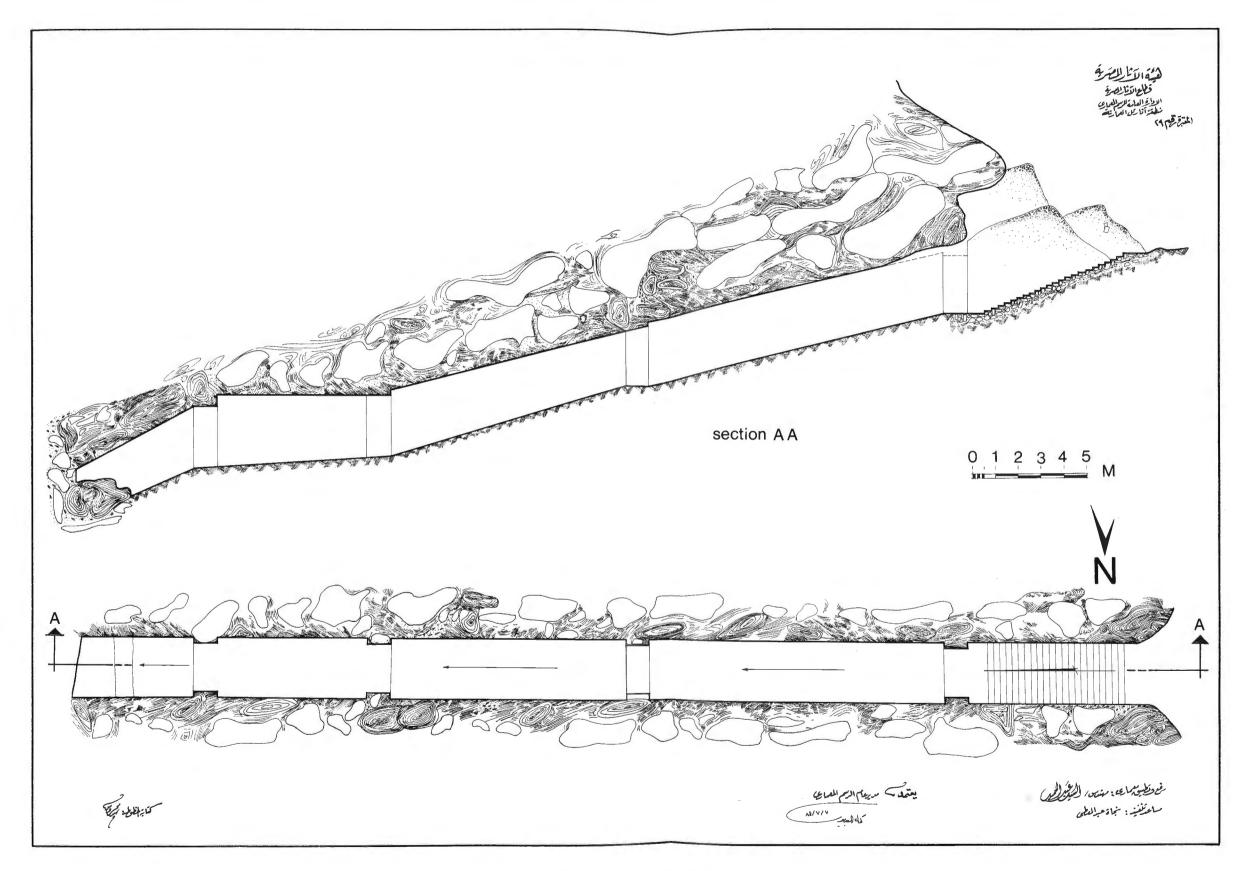
Tomb 27, section on AA.



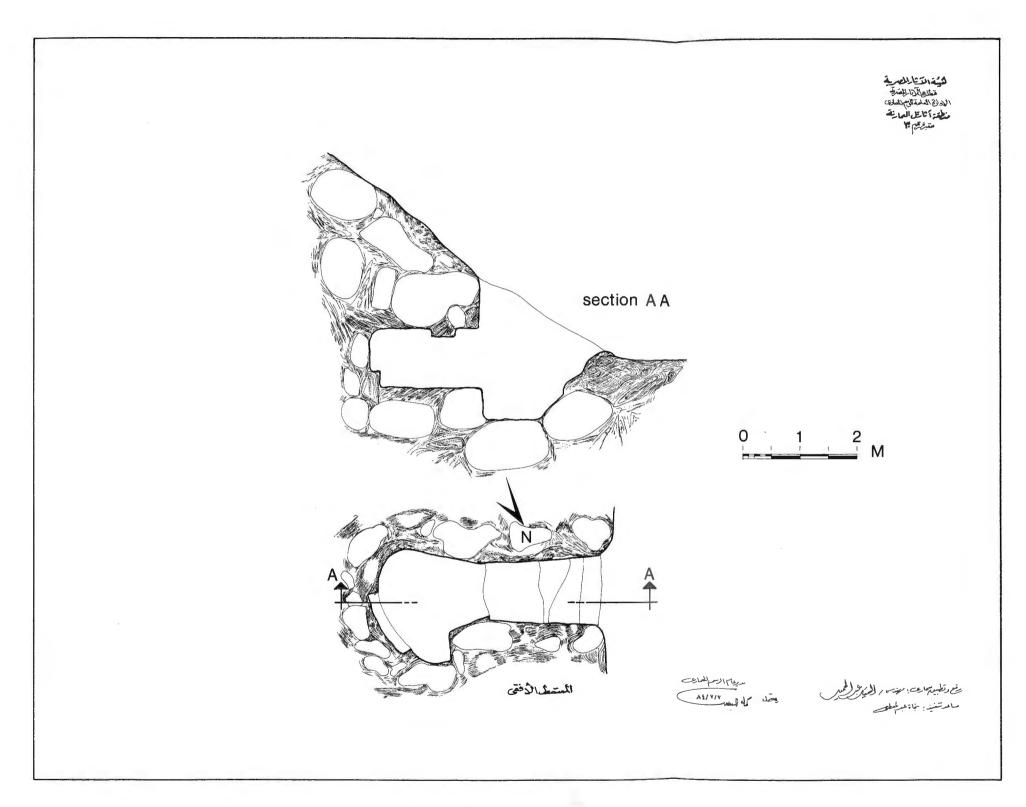
Tomb 28, plan.



Tomb 28, section on AA.



Tomb 29, plan, and section on AA.



Tomb 30, plan and section on AA.



A. — Wâdi Abû Ḥasâḥ el-Baḥri : from west, showing entrance to Royal Wâdi in middle distance (Photo. G.T.M).



B. — Wâdi Abû Ḥasâḥ el-Baḥri: from east, with entrance to Royal Wâdi at lower right (Photo. G.T.M.).



A. — Tomb 27: entrance before excavation, 1984 (Photo. G.T.M.).



B. — Tomb 27: dump outside entrance, showing slit trenches of J.D.S. Pendlebury (Photo. G.T.M.).



A. — Side wâdi: entrance from main Wâdi Abû Ḥasâḥ el-Baḥri, showing pathway and bed of wâdi (Photo. G.T.M.).



B. — Side wâdi: looking towards main wâdi (Photo. G.T.M.).



A. — Side wâdi: showing pathway, bed of wâdi, and entrance to Tombs 28 and 29 (arrowed) (Photo. G.T.M.).



B. — Side wadi: end of wadi bed, with rock ledge above (arrowed) (Photo. G.T.M.).



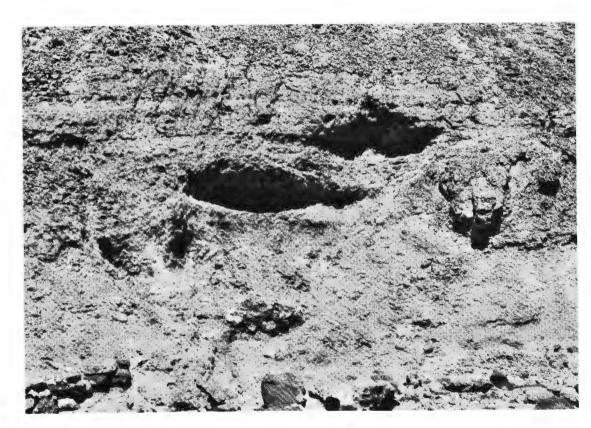
A. - Side wadi: entrances to Tombs 28 and 29, with dumps outside (Photo. G.T.M.).



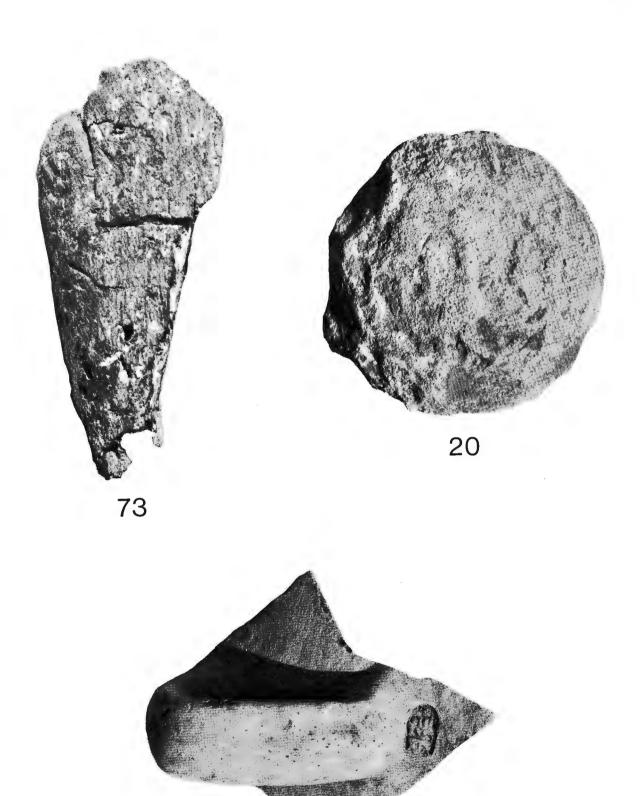
B. — Side wâdi: dumps seen from above, showing slit trenches of J.D.S. Pendlebury (Photo. G.T.M.).



A. — Royal Wâdi: Tomb 30, entrance (Photo. G.T.M.).

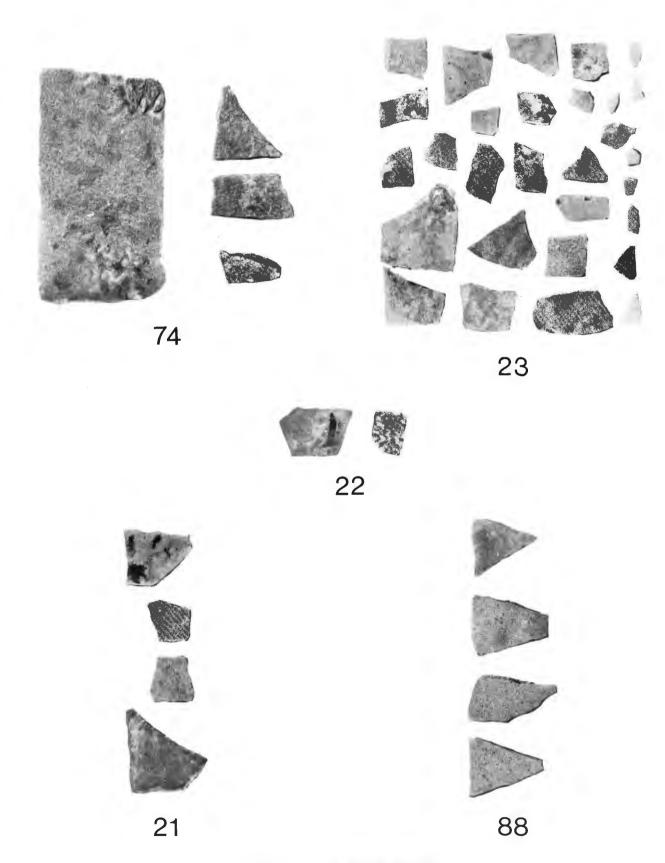


B. — Royal Wâdi: preliminary workings for a tomb entrance near Royal Tomb (Photo. G.T.M.).

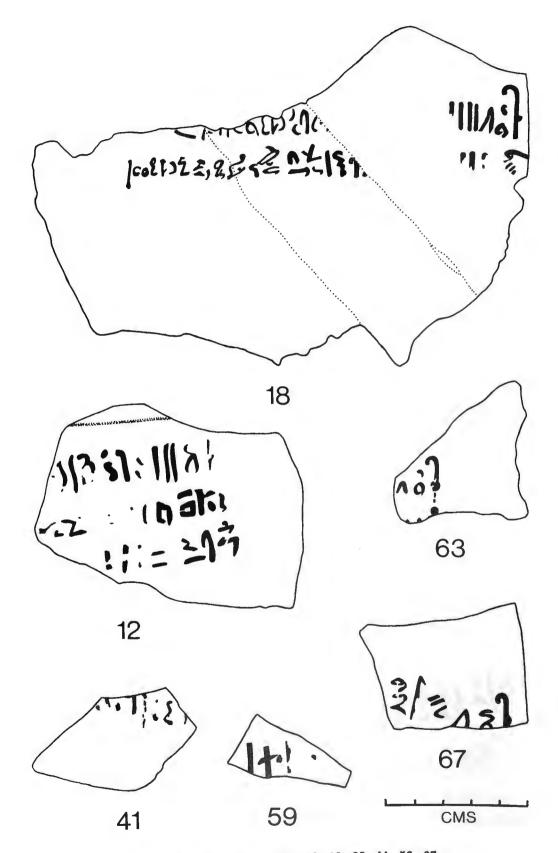


Objects, Cat. 73, 20, 35.

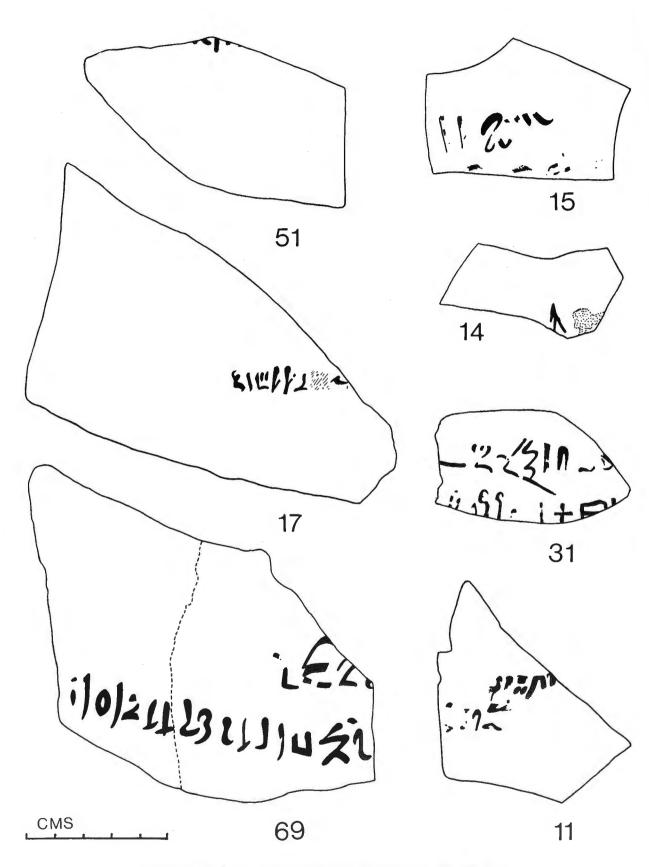
35



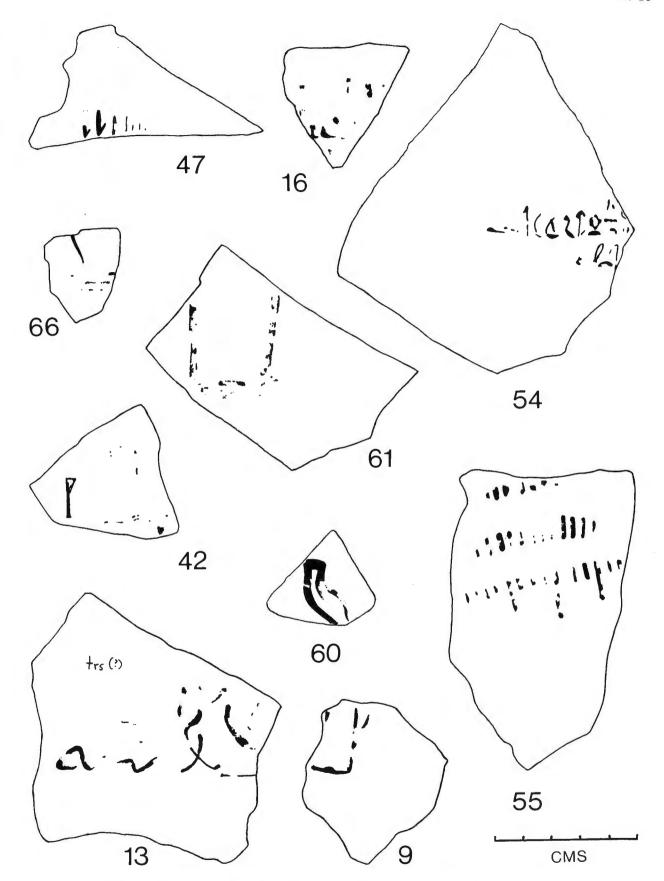
Objects, Cat. 74, 23, 22, 21, 88.



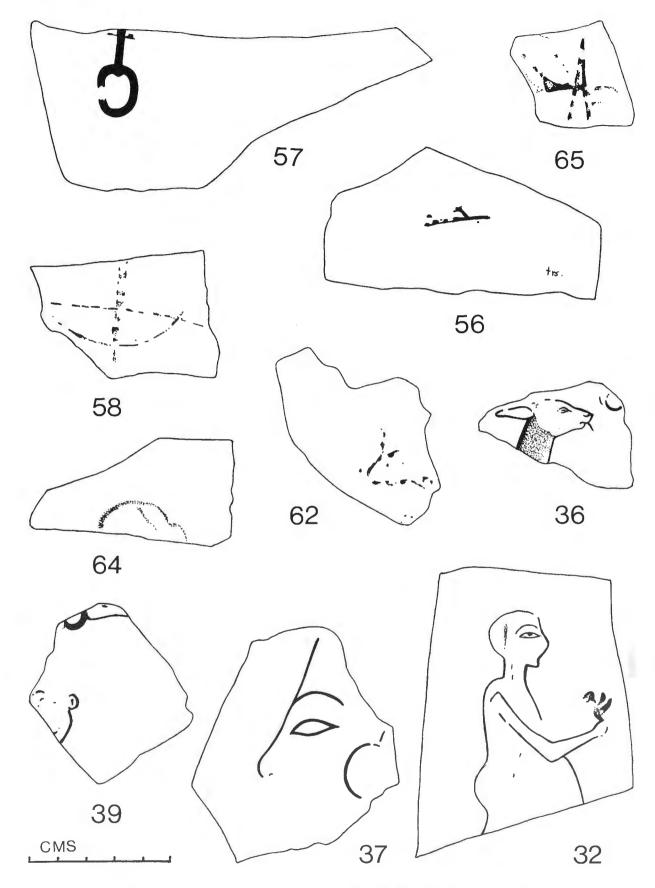
Hieratic dockets on pottery, Cat. 18, 12, 63, 41, 59, 67.



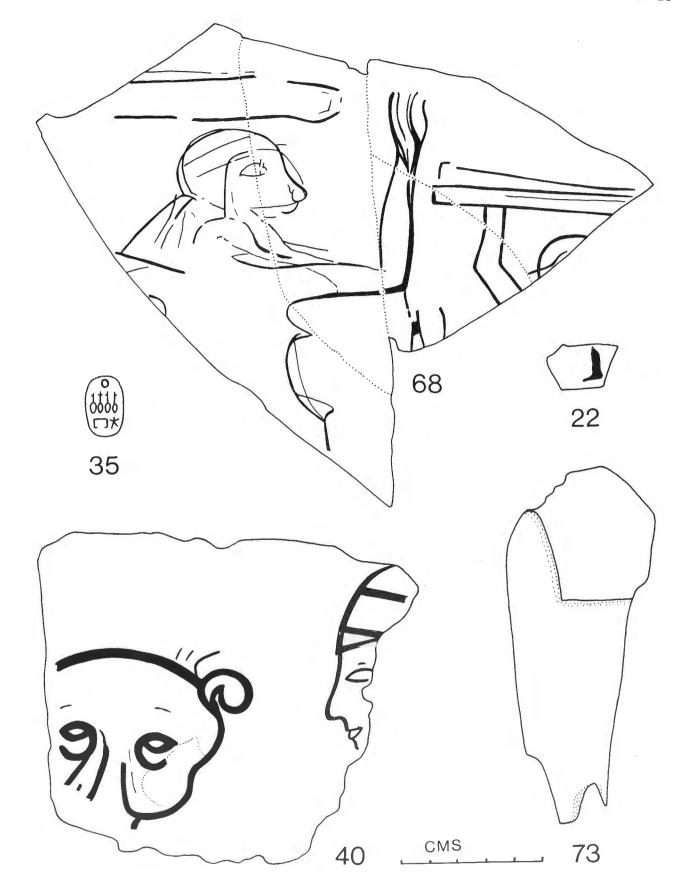
Hieratic dockets on pottery, Cat. 51, 15, 17, 14, 31, 69, 11.



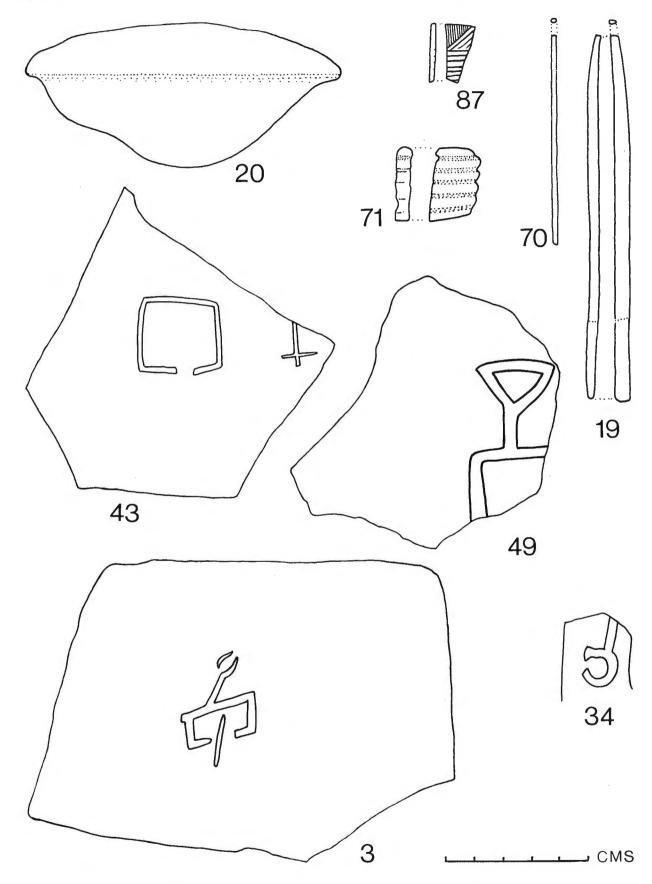
Hieratic dockets on pottery, and marks, Cat. 47, 16, 54, 66, 61, 42, 60, 13, 9, 55.



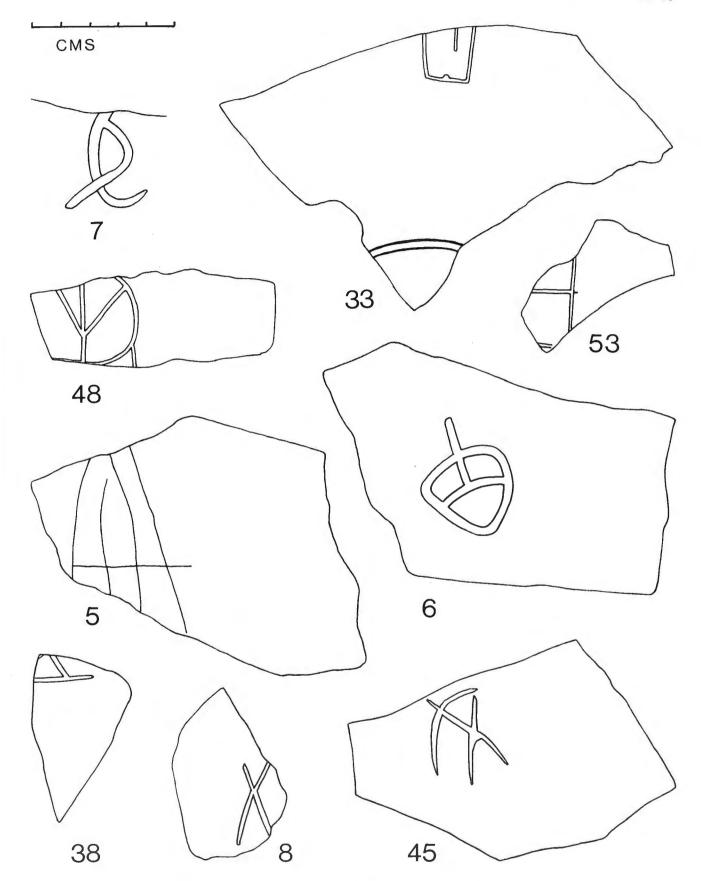
Ink marks on pottery, design ostraca, etc., Cat. 57, 65, 58, 56, 64, 62, 36, 39, 37, 32.



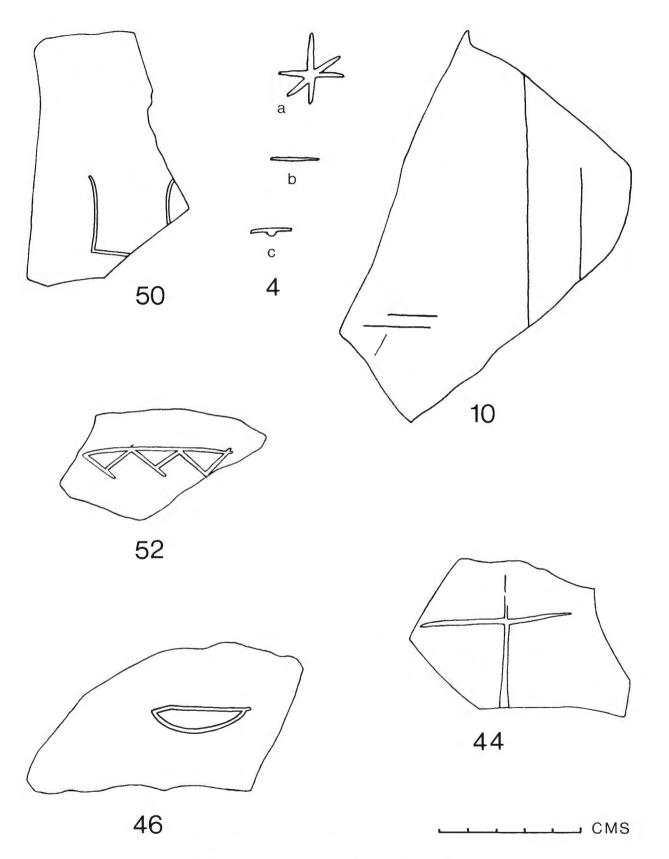
Design ostraca, seal impression, and objects, Cat. 68, 35, 22, 40, 73.



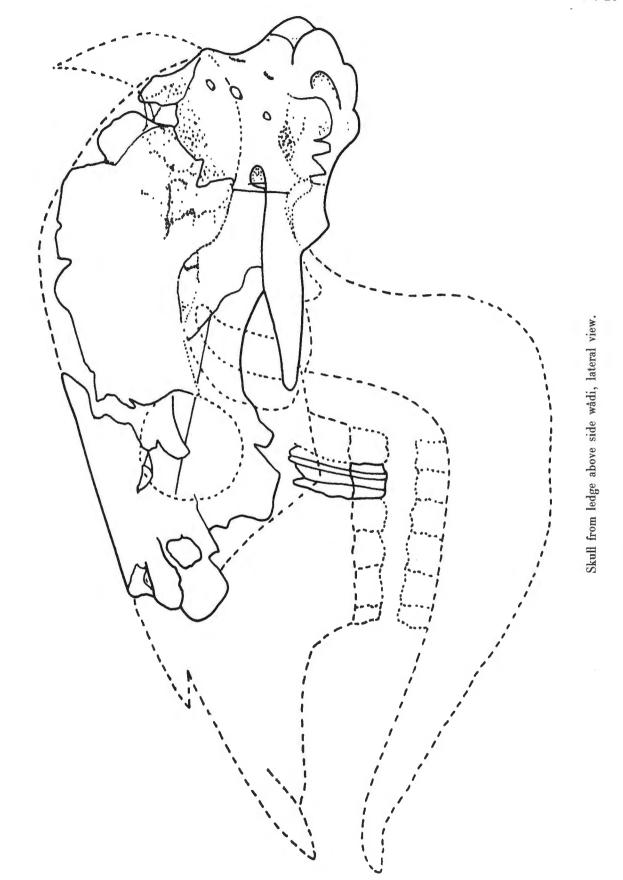
Objects, incised potsherds, Cat. 20, 87, 71, 70, 19, 43, 49, 3, 34.

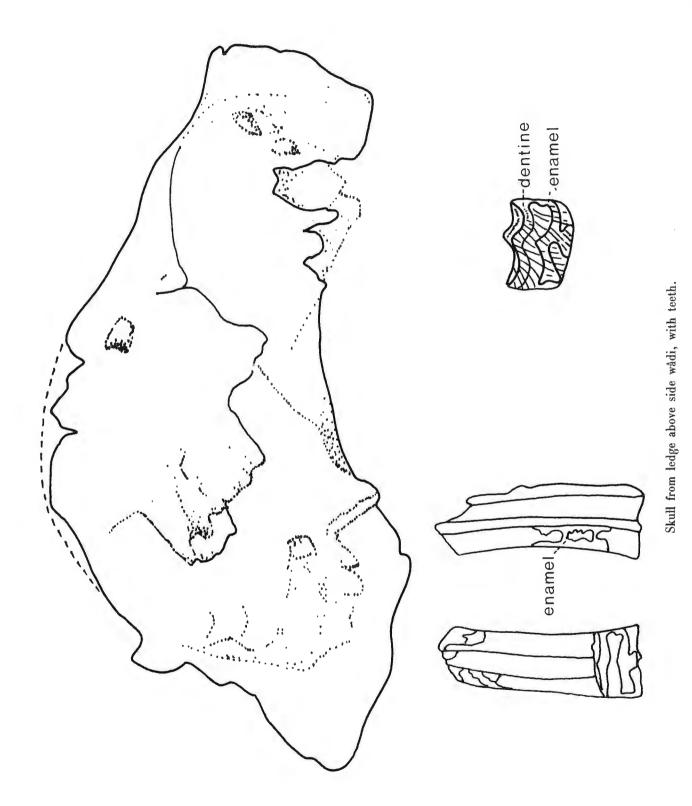


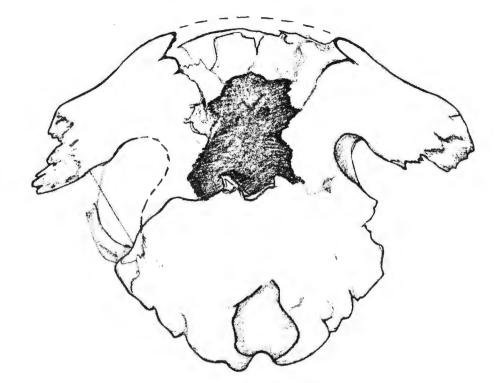
Incised potsherds, Cat. 7, 33, 48, 53, 5, 6, 38, 8, 45.



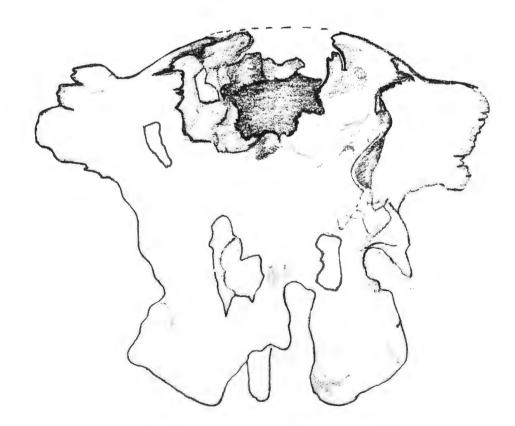
Incised potsherds, Cat. 50, 4, 10, 52, 46, 44.







A. — Skull from ledge above side wådi, section of cranium.



B. - Skull from ledge above side wadi, section of caudal.



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